Classroom research and the science curriculum : case studies in the face of multiple crises.

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CLASSROOM RESEARCH AND THE SCIENCE CURRICULUM: CASE STUDIES IN THE FACE OF MULTIPLE CRISES

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This thesis derives in part from a number of previously published papers which have been revised and rewritten.

Chapter Three was first written for a seminar at the London Institute of Education in 1972 and published as Walker R. & Adelman, C. 'Strawberries' in eds M. Stubbs, M & S. Delamont, *Explorations in Classroom Research*, Wiley, 1976. An earlier draft of this chapter was part of the final report of an SSRC funded project, 'The sociography of classrooms', Chelsea College, 1971.

Chapter Four is a much revised version of a paper that was first written jointly with Ivor Goodson for an Open University conference at Cranfield in 1975 and published as ' Humour in the classroom', in eds. M. Hammersley & P. Woods, *School Experience*, Croom Helm, London.

Chapter Five was first written as part of the Ford Foundation 'SAFARI' project at the University of East Anglia, 1973-6. It was first published in the *Cambridge Journal of Education*, 1991 and in Goodson, I. & Walker, R., *Biography, Identity and Schooling*, Falmer Press, 1991.

Chapter Six uses material from the NSF project 'Case Studies of Science Education', directed by Robert Stake and Jack Easley of the University of Illinois and an SSRC project, 'The observations of inspectors'. Parts of this chapter were published in 'The uses of fiction in educational research' a chapter in ed. D. Smetherham, *Practicing Evaluation*, Nafferton Books, 1981 and parts in 'The school , the community and the outsider' in J. Olson ed. *Innovation in the Science Curriculum*, Croom Helm, 1982.

Chapter Seven draws on the final report to the SSRC on the project, 'The observations of inspectors', University of East Anglia, 1981.

Chapter Eight derives from the Ford Foundation funded 'SAFARI' project, directed by Barry MacDonald at the University of East Anglia and was first produced as a radio script in collaboration with Caroline Pick of the BBC. It was first broadcast in 1976.

Chapter Nine draws on three published sources, Walker, R. & Wiedel, J, 'Using photographs in a discipline of words' in ed. R. Burgess, *Field Methods in the Study of Education*, Falmer Press, 'Using photographs in evaluation projects', paper written for

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CONTENTS

INTRODUCTION

*By . . . **indeterminacies** I mean a complex referent that these diverse concepts help us to delineate: ambiguity, discontinuity, heterodoxy, pluralism, randomness, revolt, perversion, deformation. The latter alone subsumes a dozen current terms of unmaking: decreation, disintegration, deconstruction, decenterment, displacement, difference, discontinuity, disjunction, disappearance, decomposition, de-definition, demystification, detotalisation, delegitimisation - let alone more technical terms referring to the rhetoric of irony, rupture, silence. Through all these signs moves a vast will to unmaking, affecting the body politic, the body cognitive, the erotic body, the individual psyche - the entire realm of discourse . . .*

(Hassan 1987, p. 92)

We find ourselves with systems that are deeply politicised and inadequately professionalised trying to cope in the face of community dissent and scarce resources. In situations where mutal trust is badly needed we find such trust rapidly dissolving.

(Walker 1992, p. 5)

Chapter One

Research in the Face of Multiple Crises

The past twenty years has seen a major shift in educational research away from a sole reliance on a limited range of measurement methods derived from psychology to a wide variety of methods and approaches, qualitative and quantitative. Over the same period curriculum has become increasingly politicised as the curriculum development movement has become transformed into the national curriculum. Currently, the seeds of further changes are appearing. The conventional structure and organisation of the disciplines is shifting from modern to post-modern. At the same time, the conventional classroom, the dominant method of teaching since the industrial revolution is undergoing changes as information technology makes an impact and the digital revolution collapses the demarcations between media.

Chapter One
RESEARCH IN THE FACE OF MULTIPLE CRISES

Teaching is not to be regarded as a static accomplishment like riding a bicycle or keeping a ledger; it is, like all arts of high ambition, a strategy to be adopted in the face of an impossible task.

Lawrence Stenhouse 1979

The research reported in this thesis spans a critical period in the development of state education, following the development and the fate of the curriculum reform movement as it has become transformed into the national curriculum. This transformation is critical for teachers and for teaching, for it implies a move away from the notion of teaching as a profession, concerned with judgement in the face of impossible tasks, towards a concept of teaching as concerned only with the relatively limited and technical process of classroom instruction.

Classroom research (like classroom teaching) is often narrow in its focus and conservative in its effects. Areas of classroom research which have been most fully developed[1], often assume an oversimplified view of learning and understanding of the curriculum, while that research which has sought to include an adequately complex view of learning and of curriculum issues is mostly unable to sustain an adequately complex view of classroom interaction.[2]

The focus of this thesis is on questions of curriculum as they appear in the context of the classroom and it attempts to address a gap in the existing research literature brought about by a tendency to separate curriculum studies from classroom research. This divide derives in turn from a deep seated separation in educational thought between theory and practice. Current changes in the ways education is organised create the need to reintegrate these concerns, to rexamine the nature of the classroom as a key educational site and to develop better understanding of curriculum issues in relation to teaching.

The research reported here has been carried out over a period of more than twenty years, the account starting from, and incorporating, the spirit of optimism which marked the publication of the first Nuffield Science Projects and their adoption by science teachers in the emerging comprehensive secondary schools. It closes as the national

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[1]For instance, classroom interaction analysis (Flanders 1970; Withall 1949; Simon & Boyer 1970) and the 'time-on-task' literature (Carroll 1963, 1984; Berliner 1987).

[2]Examples in science include the work of various 'constructivist' researchers, e.g. Driver (1983) Osborne & Freyberg (1985), Bell (1992), Duckworth, Easley, Hawkins & Henriques (1990).

curriculum begins to take effect in schools throughout England and Wales and a series of radical changes associated with the 1986 Education Act come to redefine the purpose and practice of curriculum. In the face of these changes it is short-sighted to restrict classroom research to a world bounded by four walls and a classroom door, and 'teaching' to instructional interactions between teachers and students. Indeed, the narrow perspectives adopted by research in the past can be said to have contributed to these large scale changes by its neglect of educational issues that do not fall readily into its accepted specialisms, and its failure adequately to explicate the complexities of teaching and learning.

The transformation of a movement for curriculum development and curriculum reform into a national curriculum provides the primary crisis against which this thesis is developed but there is a sub-text of other crises. Some of these are readily apparent: the intellectual crises precipitated by the 'postmodern turn', the crises created by the assault on local government and on the professions by Conservative politicians, the crisis of confidence engineered by the popular press and a range of other crises created by the moving plates of social and cultural change. Others are apparently distant from the thesis, for instance the curriculum reform movement began in the late nineteen fifties at the height of the Cold War and the national curriculum came into being as the Soviet government in Moscow began to lose control of events in Eastern Europe, and later in the Soviet Union itself. Distant as these events might seem from the everyday worlds of teachers and teaching, it is often pointed out that it was the launch of sputnik that precipitated the curriculum reform movement, and the space race that provided the political basis for the flow of funds through the National Science Foundation to curriculum development projects. The current sense of instability and the unpredictability of world events has effects on most things and schools are no exception. The world is a smaller place than it once was and events are connected in numerous ways. In September 1991 I visited a high school in Western Australia and found a large piece of the Berlin wall in the entrance to the school, along with a photograph of a group of the school's students standing on a section of the wall that included the fragment on display. Australia may seem a long way off but just as it was a migrant destination for the British working class (an alternative route for social mobility to the grammar school curriculum) it is now a destination for those fleeing Eastern Europe, the Soviet Union and SE Asia. The consequences for education of global political changes, and, even more, the effects on the sensibilities of students is unpredictable and largely unknown.

Such questions are unfamiliar in educational research, which has concentrated its attention on questions of structure and process in teaching and learning and mostly ignored processes of cultural change. As a consequence the questions that are more

immediately obvious are a set of crises in educational research, in schools and in traditional disciplines of knowledge, that all in some way touch on the issues reported here.

Specifically, there has been a major transition in educational research, sometimes described as a 'paradigm shift' (after Kuhn 1970), from quantitative to qualitative methods, along with a break in the continued dominance of educational psychology and the emergence of new approaches to research and evaluation. This thesis is firmly located in the qualitative research tradition but the re-emergence of this tradition in itself creates new problems for educational research (as well as some answers), and some of these problems are explored as the thesis develops.

Second, the choice of science as a curriculum area in which to locate this study is not without significance. It was science (and to a lesser extent maths) which led the curriculum reform movement in the US, in the UK and in the USSR. Throughout this century (at least since the Thompson Report) science, above all other curriculum areas, has been seen by governments as a key curriculum area for those policy makers who have looked to establish direct links between the content of education and economic development. Within the universities, science has become the dominant and most stable of intellectual traditions in the second half of the twentieth century but has, in the period covered by this thesis, begun to question some of its deepest assumptions. Enduring contradictions in theoretical physics, the development and use of computers and an unprecedented sophistication in instrumentation, have created the basis for forms of science that are begining to undo some of its epistemological foundations (for instance, chaos theory[3] and post-modern science[4]). Given changes in the disciplines of science, it is conceivable that the notion of science enshrined in official documents, curriculum guidelines, tests and examinations may find itself undercut by a change in what science is. In its own way, this would be just as dramatic for education as the demise of the Soviet Union has been for global politics.

Third, the classroom itself, almost always treated as a fixed element in educational theory and in educational practice has begun to be questioned and seen as open to change. The expansion of post-compulsory schooling, the adoption of training models by schools and new forms of curriculum and assessment have all led to the development

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[3]The most accessible source of chaos theory is the popular book by Gleick (1987)

[4]Key references in post-modern science include Prigogine (1980, 1984), Haraway (1976, 1991), Hayles (1990).

of alternatives to classroom teaching[5]. While conventional classrooms persist, developments in information technology (particularly the digital revolution) raise in new ways long-standing questions about the future of the classroom as the centrepiece of educational practice.

In outline these are the multiple crises that provide the backdrop to this thesis, in which I describe a series of case studies which attempt to illuminate different aspects of a changing and complex pattern of developments.

Section one reviews salient studies in classroom research and curriculum studies. The intersection of these two fields of research provides the location for the thesis. At first glance this might seem obvious but the previous sentence disguises the fact that most classroom research has avoided curriculum issues and that much curriculum research has taken classrooms for granted. The main aim of this section is therefore to create a viable intersection between the interests and concerns of these two fields of research which is seen as vital in the light of the transformation from curriculum reform to national curriculum. It is less a review of what the research literature has to say, and more a delineation of the silences that it has created.

Section two describes three linked case studies which pursue the issues raised by attempts at curriculum reform in the classroom. The linking theme is that of classroom humour, which is shown to be an indicator of different forms of teacher-student relationship, and is further explored in the context of school culture.

Section three focuses on questions of method and methodology raised by the case studies. It argues that a key characteristic of qualitative methods; their accessibility to non-specialist researchers; has been overlooked in the drive to secure their accessibility (and respectability) among research peers. The effect has been to limit the range of methods that can be usefully applied to the study of curriculum issues in the context of the classroom. Section three sets out to redress this inherent conservatism in the qualitative research tradition by testing out novel methods for use in classroom research and curriculum study.

Sections four returns to two key questions raised in the early part of the thesis. One is concerned with the issue of changes in the nature of science and takes as a critical case, drug issues. 'Drugs' can only be taught about in a very limited way in the framework of

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[5]The question as to whether the conventional classroom has a future given changes in communications technology is a question that has been raised by recent studies in the history of classroom teaching, notably by Hamilton (1989) and Bartlett (1989).

a conventional science curriculum and science teachers have great difficulty in handling the contentious ethical and social issues that are an integral part of the 'drugs problem'. Perhaps more than any other single issue, the way in which drugs are approached from within the science curriculum provides a test for developing ways of teaching science in the context of an approach that is increasingly called for by environmental educators and by those working in health education and health promotion. Central to the issue is the fact that, for both health educators and environmental educators, it is axiomatic that science cannot claim to be neutral, since it has become as much a part of the problem as is it is a part of its solution.

The second question raised in *section four* returns to the question of the future of the classroom as the key location for curriculum practice. It considers recent and imminent developments in the media and their possible consequences for teaching and learning.

This thesis is concerned with an identifiable historical period but does not claim to provide an historical account. History provides a backdrop to the studies reported here but only occasionally takes centre stage. The progress of the research has been marked too by personal history (like all curriculum it is part curriculum vitae). The research has been carried out over a period of more than twenty years in the context of a range of research projects which have had as a central concern the relationships between curriculum reform and classroom practice. The development of the thesis, as opposed to the completion of the research studies, has been subject to a comprehensive array of difficulties, delays, false starts and side tracks. These have been caused by changes of job and of location, moves to new institutions and to working at various times in four different countries but the basic difficulties have been conceptual rather than practical. While other work has competed for time with writing and reading, teaching has never been obstacle to research, for the two have always been closely linked[6]

I began this thesis, within the field of the sociology of education immediately prior to the publication of Michael F D Young's influential book, *Knowledge and Control: New directions in the sociology of education,* (Young 1971). The subtitle of this book proved to be both an enduring promise and a challenge. There is no question that the book provided new directions for the sociology of education, and that one of the key points in which it broke the bounds of earlier sociology was that it began to ask questions about

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[6]In particular the GCSE course at the Centre for Science Education at Chelsea College, devised by Harold Silver (which formed the basis for Walker & Adelman 1975), the MA courses at the Centre for Applied Research in Education in the University of East Anglia, devised by Lawrence Stenhouse, Barry MacDonald, John Elliott and Jean Rudduck (which form the basis for Walker 1985), and the distance courses at Deakin University which I teach in Australia and Hong Kong with Helen Modra, Wendy Crebbin and Wendy Crouch, and which provide the basis for chapter 11 of this thesis.

curriculum from a sociological perspective. I began this thesis hoping to ride that particular wave as it broke through exisiting convention, looking in particular to find ways of studying curriculum changes in the classroom as they were expressed in the ways predicted by Young (1971) and by Bernstein (1971) in particular. I felt well-placed to do this. I had completed a review of the existing classroom research literature under Bernstein's supervision, I was working in an institution directly and daily involved in curriculum development and in training teachers in the practice of Nuffield Science and, with Clem Adelman, had evolved novel ways of recording classroom interaction on film[7] that provided access to forms of data previously not available to sociologists.

Chapters 3, 4 and 5 of this thesis are the remnants of this attempt to find new ways of studying the process of curriculum change as it was expressed in classroom practice. This sequence of research reports also provides the key for understanding how the project came undone as the contradictions implicit in its intentions worked their way to the surface. At first these problems appeared to be simply technical difficulties:

- Repeatedly watching the many hours of film we had collected in a number of classrooms and spending many hours engaged in participant observation[8] I became increasingly aware that the conventional frames of qualitative research, and the accepted styles for reporting it, excluded much that seemed relevant and significant. Transcript seemed an inadequate device for reporting the talk to be found in a complex informal classroom and in addition the reporting genres derived from symbolic interactionist sociology, while useful to sociology, did methodological violence to the professional judgement of teachers and created inappropriate role relations between researchers and their subjects.

- Questions about the subjectivity of research subjects were not easily managed within the conventional frames of research. Behind the clips of transcript and the carefully framed extracts from interviews lay other questions that were left unanswered, often such questions touched on motivation and commitment, on

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[7] At this time video was still a primitive, obtrusive and expensive medium, hence our claim to have invented a viable 'alternative' (Adelman & Walker 1974).

[8] I was using three main sources of data. One was a year-long study of a first year class at Fairlop Girls School in Redbridge. During 1970-1 I spent three days a week at the school and maintained contact with the school and the class over a five year period. The school was well-known at this time as an exemplar of 'Interdisciplinary Enquiry' as conceived by Charity James and her colleagues at Goldsmiths' College. Second, was a series of one week visits Clem Adelman and I made to Countesthorpe College in Leicestershire during 1972, again a contemporary icon in terms of interdisciplinary experiment and innovation..Third was an archive of film material Clem Adelman and I assembled during 1971-2 from single visits to schools in the London area actively involved in Nuffield Science and the Kent Maths Project.

plans and ideals, on relationships and on power. It is one thing to approach such questions from a sociological perspective, but another to realise them from the perspective of the person who is the actor[9]

- Often, I found in practice that the explanatory power of the sociological perspective would slide into the use of the role of author to impose definitions of meaning by the researcher on the subject. My reading of studies current at the time suggested that this was a problem others faced too. To take two of the best-known studies at this time, Sharp and Green (Sharp & Green 1975) provided a neat analysis of progressive primary practice in terms of wider sociological questions, but their interviews appeared to show little understanding of the impact their self-professed roles as 'sociologists' had on the school. The headteacher in particular, seemed to be merely telling the authors what he thought sociologists wanted to know. Paul Willis (Willis 1977) succeeded in getting deep enough beneath the skin of his subjects that his own identification with them becomes an issue, but faced with the need to give his students their own voices (if only to avoid the charge that he is just as much a part of their oppression as the school), he found it impossible to hold his theoretical position and the data in his hands at the same moment and was eventually reduced to giving the lads an appendix in which they could hit back.

It was doubts of this kind that began to threaten my project. At first I thought the difficulties were primarily technical and that all they required were new forms of data, alternative procedures, clever devices. Sociologists, however, appeared slow to respond, apparently reluctant to engage with any questions that threatened their own hard-won roles and academic status but responses were emerging from within curriculum studies. Here questions about the role relationships between teachers and researchers were more acutely perceived and better understood, particularly in curriculum evaluation, where the broking role of the researcher, caught between subjects and sponsors and needing to manage marked power differentials, became increasingly problematic during the nineteen seventies[10].

I mentioned earlier that chapters 3, 4 and 5 represent a remnant of an earlier thesis that failed at the point where it touched the envelope of the paradigm. Chapter 5 is pivotal to this argument, for it was here that the questions just outlined overwhelmed the narrowly

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[9] Colin Fletcher has made this point powerfuly in a neglected book (Fletcher 1975) and Jennifer Nias has succeeded where I failed in bringing together symbolic interaction with ideas derived from group pyschotherapy to reintroduce a respect for the person to sociology (Nias 1990)

[10] These issues are clear in a key evaluation text of the time, Hamilton, Jenkins, King, *et al* (1977) and in a contemporary analysis of curriculum change, Walker & MacDonald (1975).

sociological frame in which the research was set. Chapter 5 shows features that were outside accepted practice in the sociology of the time, including the intrusion of the subject into the text, attempts by the author to reassert control by recourse to the narrative voice and the use of a documentary style that owes as much to film and television as it does to sociology.

The problems were not simply problems of method, for in an attempt to thread a way through some of the questions raised by this case study, it proved necessary to reconstruct the ethical frame within which the research was conducted. Difficulties that initially had looked to be technical increasingly asserted themselves as ethical, particularly in the way that they impinged on the relationships between the researcher and the subject. It proved necessary to rethink the ethical basis on which the research was premised and to establish an alternative set of procedural principles with the aim of testing them in practice[11] .

Creating a set of principles, which shifted attention away from technical questions about methods to ethical questions concerning the relationships between researchers and subjects, made studies like those reported in chapter five possible. But in this case they also led me to a further impasse, for the key people who figure in the study were unwilling to allow its release for publication and it was only fifteen years later (in 1991[12]) that a version of this paper was published and the completion of this thesis became possible.

Perhaps a substitute case could have been found to fill this gap in the thesis, but that would have been to walk around the problem rather than to confront the issues. The case reported in chapter five played an important symbolic part in deconstructing the sociological pretext that had provided the basis for the original conception of the thesis. It remained on the shelf and events passed it by. And, as it turned out it was these events, which I thought would render it redundant, that created a new context within which it was possible to discern a new pretext and a changed context that made the text possible. The transformation of curriculum reform into a national curriculum is often traced back to Callaghan's Ruskin College speech. 'Stations' was written the same year and increasingly looks like a fly caught in the amber. Current curriculum concerns have created the basis for a narrative base within which the thesis becomes viable.

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[11]These principles were first formulated in the SAFARI Project, directed by Barry Macdonald (MacDonald & Walker 1974) and their similarity to the principles of procedure devised by the Humanities Curriculum Project to help teachers manage the discussion of controversial issues is not accidental. The principles have since been further refined by others (Kemmis & Robottom 1981), and tested almost to destruction (Simons 1987). They remain important, and contentious, among evaluation specialists.

[12]Different forms of the paper were published in Walker (1991) and Goodson & Walker (1991).

This thesis has taken many years to evolve[13]and it remains incomplete, merely abandoned. It has taken that long to follow through some of the implications of Michael Young's book and, particularly to realise that one of the new directions *for* sociology (as opposed to *in* sociology) is away from sociology and even apart from it.

To move from sociology to curriculum is not quite the solution I once thought it was for any study of curriculum is faced with the inevitable double-take that it is both a study *of* curriculum and a study *in* curriculum.

David Hamilton has recently defined a curriculum in the following way (in a taped interview):

> A curriculum denotes three things; a map of knowledge, a journey across the map of knowledge, and a destination. Each person follows different curricula, and indeed, the word career and the word curriculum come from the same root.
>
> (Hamilton 1991)

As a journey of exploration this thesis has taken a long, sometimes tortuous route and been subject to several false starts, retreats and over-winter camps. It has been difficult to force closure against the grain of historical events and the point of destination has not always been clear. Continuing the metaphor of the curriculum as journey, Bruce Chatwin, intrigued by the Bedouin belief that the soul will travel no faster than a trotting camel, tells the story of an early African explorer:

> A white explorer in Africa, anxious to press ahead with his journey, paid his porters for a series of forced marches. But they, almost within reach of their destination, set down their bundles and refused to budge. No amount of extra payment would convince them otherwise. They said they had to wait for their souls to catch up.
>
> (Chatwin 1988, p.256)

The work reported here has likewise been forced to wait. It was conceived in a 'modernist' frame when it needed a soul that was 'postmodern'. The reader should be warned that the thesis is not reported in the conventional form of problem statement, literature review, methodology, data collection, statement of results and conclusion. It

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[13]I use the word 'evolve'where others may say 'complete'. In current climate it is important to emphasise that the kind of work required by a thesis, time may be needed, not just to collect and analyse data, but to locate the thesis in terms of evolving events. In the twenty years since I began this thesis I have constantly and continuously been involved in doing research, but it has both taken time and the progress of time to understand the significance of some of this work.

reports several studies, not one, and at first sight it may not always be immediately obvious quite how these studies are inter-related. The development of theory, methodological issues, substantive problems data and interpretation are not always clearly separated and the connections between them are intentionally treated as complex. As the research proceeds the problem itself changes as does the focus of concern. Some readers may find the consequent jump-cuts disturbing. At the same time I have done all I can to avoid using the styles of language use favoured by many writers who share an interest in the postmodern. I have tried to write in ways that are straightforward, uncluttered by jargon and rely on too great a dependence on a working knowledge of the literature but I am aware that in doing so I have created a further contradiction between form and content.

A central argument of the thesis is that two cornerstones to the research tradition (and to educational practice more generally), 'curriculum' and 'classroom teaching' are under erasure, but this argument only surfaces towards the end of the thesis for I have adopted the formal structure of accepting the counter proposition and attempting to test it to destruction through empirical study. This creates a line of argument that takes the form of thesis and antithesis in which, as I have indicated, chapter five is pivotal.

SECTION ONE
CONTRADICTIONS IN CLASSROOM/CURRICULUM RESEARCH: A SELECTIVE REVIEW

RW *I think you said that you only used the word 'curriculum' once in the entire book [The Enquiring Classroom].*

SR *I have always had difficulty with the word 'curriculum' and I think that is because of my background as a primary school teacher in Britain in the seventies. . . . I think the school [where I taught] tended to reject that kind of notion of what happened in classrooms, or what should happen in classrooms. . . . if I was pushed to say what a curriculum is I would end up saying it's something like the experience of the learner . . . but it just never occurred to me [to use the word]*

Interview with Stephen Rowland 1991

Chapter Two
The Curriculum in Classroom Research:

Early research in classrooms was essentially practical in intent, concerned with the measurement of teaching quality for employment and assessment purposes. In the forties there was a growing dominance of educational pyschology over educational research and a strong ideological undercurrent as researchers attempted to demonstrate the superiority of 'democratic' styles of teaching over 'authoritarian' styles. This influence remained into the sixties and seventies with the development of interaction analysis and its many variants.

The curriculum development movement pushed classroom research to develop methods which considered curriculum issues just as improved recording methods became available and as sociologists and others were attracted to the study of classrooms. Gaps remain in the field, however, as curriculum issues have been either invisible or treated simplistically. Only with the rediscovery and reinvention of action research did curriculum issues and classroom research come together but the question remains as to whether classroom research has the techniques, methods or imagination to take up the questions this raises.

Chapter Two

THE CURRICULUM IN CLASSROOM RESEARCH

In the past twenty years 'classroom research' has become a major feature of educational research. This was not always the case, for although classrooms have long been a central feature of schooling, classroom research did not really begin to develop as a significant research field until the post war period and did not become a major focus of attention for educational researchers until much more recently[1].

A first question for anyone entering the field is often to ask why this is so. Why did classrooms remain invisible to research for so long, when to teachers, students and parents they dominate and even define what counts as education, teaching and learning? In this chapter, I will attempt to explain why, and suggest some of the consequences of this history for education and for educational research, one of which has been to separate 'classroom' and 'curriculum'.

A brief (social) history of classroom research

There is a famous documentary film made by Harold Massingham (a general practitioner whose hobby was film making) about a gasworks. In the nineteen thirties, Massingham was commissioned by a gas company to make a short promotional film, something like what we would now think of as a tv ad. He asked for an outline of the information the company wanted to be included in the film so he could develop a script. Not being familar with the demands of film-making, the Company gave him several pages of technical information describing the chemical and engineering processes involved in the production of town gas.

Faced with the problem of compressing large amounts of technical information into a small space, Massingham solved the problem by making a speeded up film of himself (he was a rather large man) running up and down ladders and across gantries as he recited the information that had been provided by the company. The whole thing was done at breathtaking speed, not unlike a modern cartoon. The result is a film that is eyecatching, faithful to the text and makes its point by conveying the complexity of the processes involved without lapsing into any attempt to explain the detail. I am faced with a similar problem here.

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[1]Walter Doyle (1983) argues that research on teacher effectiveness was important in the United States during the early part of this century in providing a professional basis on which administrators could hire and fire as an alternative to 'personnel practices that were deeply enmeshed in patronage', but this research was primarily concerned with finding indicators, not with understanding classrooom processes.

It was not always so. In attempting to review the classroom research literature in the early 1970's, I felt confident that I could do this in a short journal article. I was able to start by noting that:

> The interaction of teacher and pupils within the social arena of the classroom is a central element in all educational institutions, yet it has been left largely unstudied by sociologists.
>
> (Walker 1972, p. 32)

Admittedly, I was at the time writing for a relatively limited audience, that of sociologists of education (but even for them things were soon to change). But others with greater experience also felt able to encompass the field of classroom research relatively briefly. In what was for many years the authoritative review of the field by Donald Medley and Harold Mitzel, only 59 relevant references were listed, all of them American, and they too began:

> Certainly there is no more obvious approach to research on teaching than direct observation of the behaviour of teachers while they teach and learners while they learn. Yet it is a rare study indeed that includes any formal observation at all
>
> (Medley & Mitzel 1963, p. 247)

And in 1983, Walter Doyle pointed out that the research field did have a history, but he too saw its peak of activitity in the 1960's and 1970's:

> The study of classrooms has a long history in educational research. Since the late nineteenth century observers have attempted to describe what occurs in these settings. During the 1960's interest in the world of the classroom intensified. A broad array of category systems - perhaps as many as 400 - were developed to record and analyse aspects of classroom behaviour. . . . In the 1970's observational procedures were further refined, and several large-scale studies were conducted. At the same time specialists from other disciplines were attracted to the classrooms, bringing a diversity of methods and theoretical persuasions to the field.
>
> (Doyle 1983, p. 1)

In the 1990's it is impossible to provide a concise review of the field. The expansion that has characterised the last thirty years can be demonstrated by looking at the ERIC data base. A first scan shows that there are 52,675 sources using the descriptor 'classroom' in the 1981 to 1991 literature (and a further 58,674 items in the earlier period 1966-1981). Clearly the idea of accomplishing a complete and thorough review of the literature is an impossibility; even Harold Massingham would have been hard pressed to cover 110,000 items.

Not only has the volume of the research literature increased severalfold, but distinctive traditions and sub-traditions have emerged within it. As Doyle indicated, classroom research is no longer contained by the discipline of educational psychology, as it was when Donald Medley and Harold Mitzel wrote their review. A contemporary survey reveals that some significant areas of research are strongest and have their intellectual base outside the USA. There is a vigorous action research literature which connects classroom research and curriculum innovation and is mainly British and Australian (Elliott & Adelman 1975; Elliott 1991; Carr & Kemmis 1983; McTaggart 1991), a developing tradition of work in teacher thinking and teacher planning which has bases in the US and in Europe (Clark & Yinger 1979; Shulman 1987; Berliner 1987) and a tradition of sociological research which is essentially British (comprehensively reviewed by Atkinson, Delamont & Hammersley 1988). Beyond psychology, the main developments in classroom research in the past ten years have come not just from sociology and anthropology , linguistics and socio-linguistics but increasingly from literary theory (Turkle 1984; Christie 1986; Reid 1987) and feminist research, initially into girls' subcultures (Clarricoates 1980, 1987; McRobbie & Garber 1976; Fuller 1980; Stanworth 1983; Davies 1984; Griffin 1985; Lees 1986) and more recently on pedagogy and methodological issues (Walkerdine 1982; Lather 1991; Kenway & Modra 1989; Lewis & Simon 1986).

Although there has been a remarkable expansion of the literature, Medley and Mitzel's comment is still true in the sense that only a minority of educational research studies involve direct observation in classrooms. Direct observation remains difficult to accomplish despite developments in recording technology, for these technologies are demanding of time and beyond the ambitions of most researchers. While there are few studies in education that do not in some way invoke images or assumptions about classrooms as sites for teaching and learning, there is still a lot we do not know about the ways in which classrooms work as social settings.

Roger Barker, the founder of 'ecological psychology' and a man who has had great influence on the field through the work of his students and colleagues wrote eloquently of this silence in our understanding of human life:

> Psychology knows how people behave under the conditions of experimental and clinical procedures, but it knows little about the distribution of these and other conditions, and of their behaviour resultants, outside of laboratories and clinics.
>
> It is different in other sciences. Chemists know the laws governing the interaction of oxygen and hydrogen, and they know how these elements are distributed in nature. Entomologists know the biological vectors of malaria, and they know much about the occurrence of these vectors over the earth. In contrast,

psychologists know little more than laymen about the distribution and occurrence of their basic phenomena: of punishment, of hostility, of friendliness, of social pressure, of reward, of fear, of frustration. Although we have daily records of the oxygen content of river water, of the ground temperatures of cornfields, of the activity of volcanoes, of the behaviour of nesting robins, of the rate of sodium iodide absorbtion by crabs, there have been few scientific studies of how human mothers care for their young, how teachers behave in the classroom (and how the children respond), what families actually do and say during mealtime, or how children live their lives from the time they wake up in the morning until they go to sleep at night.

(Barker 1968, p. 2)

In this post-chaos age it seems Roger Barker may have been over-confident in his assessment of the progress of science, but he captures well the spirit with which many educational researchers 'discovered' the classroom in the 1960's.

Recent research

The review of 59 references written by Donald Medley and Harold Mitzel in the early sixties has been succeeded by more recent attempts. In particular, *The Handbook of Research on Teaching* (Gage 1963), in the first edition of which their review appeared, has been followed by more recent editions (Travers 1973 and Wittrock 1986). Tracing the development of the field through successive editions of *The Handbook* adds some flesh to the skeleton provided by an ERIC search. The Handbook is a standard reference work for educational researchers, being sponsored by the American Educational Research Association, the key organisation for educational researchers, and each chapter is written by researchers who are considered authorities in their fields.

While Medley and Mitzel's review became the key reference in the field, in fact in the first edition of the *Handbook* the classroom research field is summarised in two review chapters, the one by Donald Medley and Harold Mitzel with the title, 'Measuring classroom behaviour by systematic observation', and another by John Withall and W. W. Lewis, titled, 'Social interaction in the classroom'. The reason for having two chapters is not explained in the introduction but it would seem to mark a sense of boundary in the field. Withall's research is somewhat more oriented to social psychology, his research derived from the studies of group 'climate' developed in America by Kurt Lewin with Lippit and White. While Withall's social psychological perspective leads research to somewhat different questions, in practice the two reviews are not very different in their essential understanding of the nature of the field. Both reviews are based on the assumptions that research on teaching is essentially concerned with questions of measurement, that classrooms present a technically difficult area in which to do research and that the intellectual and methodological problems of the field lie within psychology.

Ten years after Medley and Mitzel, when Barak Rosenshine and Norma Furst reviewed the field for the second *Handbook*, they took a different view. They found it a difficult task to create a coherent narrative and they introduced their chapter by observing that:

> The research on teaching in natural settings to date has tended to be chaotic, unorganised and self-serving ... There seems to be no simple route through the chaos which has developed, . .
>
> (Rosenshine & Furst 1973, p. 122)

Those with an eye for paradigm-shift will recognise in this tone of despair a sign that significant change was afoot (their use of the word 'chaos' is a strong clue here). Change came from a number of different directions. The long running bid for scientific respectability through quantification and experiment, which had characterised much educational research to this point was increasingly under question. Rosenshine and Furst's review can be read as a final plea for classical research as the Barbarians hammer at the gates. They concluded with a short section headed by a quote from Mathew Arnold, 'The eternal note of sadness', which is reflected in the overall tone of the whole *Handbook*. The editor, Robert Travers, admitted that, although much more research had been carried out and researchers had become more specialised since the publication of the first *Handbook*, many of the authors had expressed disappointment about the lack of substantive progress in their fields:

> Indeed, in looking over the collected chapters, one cannot help but be concerned about the lack of progress that has been made in relation to the large sums of money invested in the enterprise by federal government.
>
> (Travers 1973, p. vii)

The tone of the third *Handbook* (Wittrock 1986) is quite different. Not only is it more optimistic and forward-looking, it is altogether a more substantial document. Particularly significant is the fact that the authors, and the work reviewed, range across a number of disciplines, including the work of linguists, sociologists, anthropologists and philosophers, and the fact that research in Europe, Australasia and elsewhere is given serious attention. Overall qualitative research is given almost as much attention as quantitative research. It is difficult to resist the impression that the thirteen years between 1973 and 1986 was one in which educational research underwent a major transformation.

One cost of this transformation was a loss in theoretical coherence. The research reviewed in the first *Handbook* may have had its limitations, but it also had a certain elegance and consistency. Currently it is difficult to achieve such a sense of synthesis

because of the sheer scale and diversity of available research. As I mentioned at the start of this chapter, classroom research in particular is almost beyond the scope of review. Not only has the volume of research increased but distinctive traditions and sub-traditions have emerged within it.

Several of these other traditions have already been mentioned, for instance there is a tradition of sociological research built on observational studies of schools[2], a case study tradition developed in the field of educational evaluation[3] and developments in the analysis of classroom discourse[4]. In the United States, a number of researchers have used and adapted ethnographic methods in the study of classrooms[5], while researchers in Britain and Australia have rediscovered and reinvented action research[6]. Though it should be noted that, despite the appearance of the term 'action research' in numerous papers at the AERA annual conference in the last few years, it received little acknowledgement in the third *Handbook*, prompting only dismissal by Bruce Biddle and Don Anderson:

> . . . few systematic insights and findings seem to have been generated as yet for our understanding of teaching by means of action research.
>
> (Biddle & Anderson 1986, p. 239)

But this offhand comment begs the important question of *whose* insights count. In their attempt to place the teacher, rather than the researcher, centre-stage, proponents of action research argue that the understanding of the practitioner comes first. A view that

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[2] This research is mostly British and includes the studies of Hargreaves (1966), Lacey (1970), Woods (1979), Ball (1981), Burgess (1983) and Pollard (1987). American studies include Peshkin (1978, 1986) and Cusick (1973).

[3] Evaluation has always had a more substantial base in the US, particularly since evaluation requirements were built into the legislation (beginning with Title 1). Robert Stake (Stake 1967; Stake 1970; Stake & Easley 1977; Stake 1991) has been a leading figure in the development of case study approaches within this tradition. In Britain the book edited by Hamilton, *et al* (1977) provides a useful summary of the arguments; MacDonald & Walker (1974) have explicated the philosophy and Walker (1983) provides a review of the field.

[4] Spurred on by Bernstein's work at the London Institute a number of sociolinguists developed an interest in studying classroom interaction. Studies include those of Sinclair & Coulthard (1975), Cazden (1983, 1986, 1988), Stubbs (1983).

[5] The involvement of anthropologists in educational research in the US parallels the interest shown by sociologists in the UK. Not only are the traditions distinctive but the emphasis of one on culture and the other on social structure is indicative of different theoretical positions. Ethnographic studies have been reviewed by Sindell (1969) and by Jacob (1987). George Spindler has been a dominant influence, especially through the work of his students and his efforts to publish their work (Wolcott 1967;.Spindler 1982). Interestingly, the community studies tradition, which was strong in the 1950's has been neglected, surviving only in the work of Barker (1968) and his colleagues (Barker & Associates, 1978; Barker & Barker, 1963; Barker & Gump, 1964; Barker & Schoggen, 1973; Barker & Wright, 1951; Barker & Wright, 1955, Gump, 1967, 1974, 1978, 1982).

[6] One of the best known recent studies (Elliott & Adelman 1975) appears to have reinvented rather than rediscovering action research. Carr & Kemmis (1986) have developed a strong conceptual argument for placing action research centre stage in education, while McTaggart (in process) has connected educational action research with the tradition of 'participative research' in third world contexts.

is difficult to establish in the face of large research industry which has such faith invested in the notion of expert knowledge - the researcher's expert knowledge.

While it appears true (at least in 1986) that action research had failed to establish itself in the United States, Biddle and Anderson argue, somewhat paradoxically, that this is because the method is best suited to centralised systems and does not thrive in a democracy like the United States. Yet a largely forgotten American action research tradition has come to light which derived from the work of Kurt Lewin in the 1940's and continued to remain active until the late 1950's[7]. Lewin's influence on classroom climate research has long been recognised[8], but his significance as a founder of action research did not become widely acknowledged until recently[9]. It is difficult to say why educational action research appeared to die out in the United States after the late fifties, though some commentators appear to suspect the long arm of McCarthyism. Certainly the growing professionalisation of the academy lead many researchers only to value studies that could demonstrate 'scientific' credentials and this devalued the role of the teacher and the role of local descriptive studies.

Classroom research and curriculum

While Rosenshine and Furst were mourning the demise of one model of classroom research, the field was about to become the point of collision for three different movements. As already noted the disciplinary dominance of psychology was about to be questioned, the curriculum reform movement was providing new questions and new ways of looking at research, and third, information technology, in the form of portable, reliable and effective audio and video recorders was changing assumptions about what was possible in research.

The curriculum reform movement was important because it questioned the notion of the curriculum as an objective and unproblematic educational fixture. Through the sixties and seventies a series of curriculum projects were developed which presented alternatives to mainstream views. Cumulatively, the effect was to reveal the fact that curriculum is not unproblematic but arises from decisions that involve selections from an array of cultural possibilities. Curriculum is not objective, we came to realise, but constructed on the basis of particular values[10].

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[7]The history of action research has been documented by McTaggart (1990), and Kemmis & McTaggart (1982b).

[8]Particularly through the work of John Withall at Pennsyvania State University in the 1940's and 1950's (Withall & Lewis 1963).

[9]There are some counter-claims to be made in terms of history of action research, for instance Altrichter nd.refers to German sources that locate Moreno, rather than Lewin, as the key founding figure in action research

[10]Curiously, while this point is central to the discussions of educational philosophers (Hirst 1965; Peters 1966; Sockett 1975), it was Malcolm Skilbeck who carried the idea into the policy arena, both in

This view of the curriculum was difficult to fit into the accepted patterns of educational research, which saw questions of value as antithetical to science and it was out of this conflict that a number of alternative approaches to research emerged. Central to this emergence was a fresh set of approaches to the problem of how to do classroom research[11].

For those coming to classroom research from an interest in curriculum issues, all that the field had to offer were observational studies that focus on the issue of how teachers present lesson content (Smith 1963, 1967; Bellack 1966). Except for studies by Douglas Barnes, James Britton and Harold Rosen (Barnes, Britton & Rosen 1969; Barnes & Todd 1977), there have been few points where classroom research has seriously taken up the curriculum issues raised by curriculum development and reform. In part, I believe this is a consequence of strong American influence on the field, where classroom research has striven hard for acceptance within the psychometric tradition, or developed critical perspectives on this tradition that have drawn it away from curriculum issues[12]

The history of classroom research : A brief summary

Through the forties and fifties and well into the sixties, classroom research remained a minority concern among educational researchers, who seemed to see the way to develop the field as lying in the areas of testing and measurement, or in the laboratory. With hindsight, there appear to be a number of reasons why classroom research was late to develop as key area of educational research.

First, for much of the post-war period, during which schools and teacher education expanded rapidly and educational ideas and practices developed apace, the intellectual base on which educational practice relied was often out of step with practical issues and concerns. Scholarship and research in education, have only slowly become disentangled from a discipline base in social science, and particularly from the dominating influence of psychology. Until recently,

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his influence on the Open University Curriculum course (E203) and in the debate over the 'core curriculum' (Skilbeck 1982).

[11]This new direction was first realised in the context of educational evaluation, for example, by Smith & Pohland (1974), Parlett & Hamilton (1972), Adelman (1975).

[12]The few critical responses include the work of Jackson (1968), Smith & Geoffrey (1968), Henry (1965), Henry (1960). The conscious adoption of 'ethnographic' approaches by many of these researchers has made the direct study of curriculum issues difficult, though they have all made a significant contribution to understanding of the hidden curriculum. Those studies that have confronted curriculum issues (Stake 1991; Stake and Easley 1977; Easley 1991) have tended to be read by localised audiences and not to have affected the overall direction of research.

Teachers' Colleges have been slow to develop intellectual self-confidence in the face of university dominance and, as an academic discipline, education has only recently developed a distinctive and substantial research base[13].

Second, the inherent complexities of classroom interactions have created technical problems that research has been slow to address. The fact that social science too has been slow to develop methods and approaches that give any insight into directly observed social interaction has meant that there has been little help or support available in the academic community for those wanting to study classrooms at work. Indeed, when Philip Jackson began doing some of this research in the nineteen sixties, he claims to have been influenced more by those ethologists who studied primate behaviour in the wild than by research in education, psychology or sociology (Jackson 1987).

Third, while a small number of earlier researchers experimented with ways of observing the complexities of classroom interaction (Henry 1960, 1965; Waller 1932; Thomas 1929; Isaacs 1930), most found the prospect daunting. All these authors were strong individuals and to some degree isolated from the academic mainstream[14]. It was only with the ready availability of cheap, portable audio cassette recorders in the late nineteen sixties, and of video in the seventies and eighties, that direct recording of classroom events became a possibility. And while the new technology created possibilities, research was generally slow to adapt its habitual practices in order to make use of the new instrumentation, generally lacking the concepts and theories that made such research possible[15].

Fourth, while some of the reasons for the neglect of classroom research are purely technical, behind the technical reasons lie values. It is true both that classroom research is not easy or simple to do and that it was made less so by the

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[13]In both Britain and Australia, funding for research in education is subsumed under committees dealing with social science or the humanities. The proportion of funds available for research in relation to the number of academics currently working in each field shows education to be funded to a much lesser degree than other disciplines.

[14]Jules Henry was a cultural anthropologist who developed an interest in education through studies of socialisation in other cultures. Waller, who was a Chicago trained sociologist, made heavy use of autobiographical data. Dorothy Thomas was an early childhood educator, a friend of Margaret Mead and married to the sociologist, W.I. Thomas. Susan Isaacs (like Maria Montessori, Tolstoy, Neill, Russell and Wittgenstein) was in the great tradition of educational theorists who taught, or ran their own schools in order to test their ideas in practice. Both Dorothy Thomas and Susan Isaacs were primarily interested in the field of early childhood education, a field that is almost treated by educational research as, at best specialised, and more often marginalised.

[15]In the social sciences the major exception is the work of Margaret Mead and Gregory Bateson in Bali (Bateson & Mead 1942). In classroom research those who first used audio and video recordings did so primarily to overcome difficulties in the coding and reliability of pencil and paper category systems (for example, Adams & Biddle (1970), Kounin (1970) , Sinclair & Coulthard (1975).

dominant techniques used in research until relatively recently. In the US educational research was, for a long time, defined by the application of a limited range of measurement techniques to problems framed by experimental designs. For most of this century, to do educational research demanded that you adopt experimental, testing or survey methods, that you use a limited range of measurement techniques and apply certain kinds of statistical procedures and that you report your work within an accepted style and language. Such an approach has severe limitations when it is applied to real, complex social settings like school classrooms.

With the benefit of hindsight, it seems obvious and unproblematic to say that that classroom research did not thrive in a context dominated by experimental, survey and testing methods. Classrooms are inherently complex, they resist reduction to simplified sets of variables and they are not readily amenable to being treated as one-off experimental 'treatments'. Finding a vantage point for research which recognised that classrooms are cultural settings, the fragility of which is vulnerable to the methodological violence inherent in standard research practice, was not easy, nor was it easy to argue that we needed to turn elsewhere for methods, for metaphors and for explanations.

In retrospect, it seems as though educational researchers have been over-concerned with establishing educational research as a science, and have done so within a limited conception of what it means to be scientific. This concern has not been simply an abstract and inconsequential notion, for it implied that boundaries were maintained between those inside and those outside schools. Teachers were perceived as practitioners rather than as researchers, and the classroom as a 'technology' within which research sought to influence practice by the application of new ideas. As a result educational research constructed itself outside schools, treating the classroom itself as a black box and the teacher as a trainable subject, not too disimilar to the proverbial maze-running rodent.

One of the key features of experimental, survey and testing methods of the time is that they each adopted a view of research as concerned with the identification of simple effects between single variables or agglomerates of variables created by statistical analysis. Such research requires that variables are controlled wherever possible, that research designs are constructed so as to minimise interference effects, measurements are made and the results processed to emphasise variation and difference. Perhaps the main reason why classrooms did not figure largely in research until the nineteen sixties was that educational research defined itself in terms of a limited methodology. Or, looked at slightly differently, the fact that researchers took the category 'classroom' to denote a

particular collection of universal behaviours meant that implicit boundaries were placed around 'classrooms' that in themselves required the assumption of continuity and consistency. By its own internal logic, research that defined itself in terms of the search for connections between treatments and products tended to reinforce a conception of teaching as concerned with realising specific objectives and minimised the significance of the many variations to be found in the educational process[16].

This has had the effect of limiting the scope of classroom research in several ways but nowhere more than in the field of curriculum. By definition, 'curriculum' needs understandings of classroom processes which account for changes over time, while much research assumes a timeless, even time-free, ahistoric concept of the classroom[17]. What we have from the dominant research literature is a mechanical, decontextualised image of teaching as a set of interactive behaviours and of the curriculum as syllabus content assessed by gains on achievement test scores. Despite an ethographic tradition of research which has attempted to challenge these assumptions, and recent research on teacher planning which has attempted to reinstate teachers' understanding of subject knowledge[18], the challenge for this thesis remains. Is it possible to find ways of doing classroom research that offer an understanding of classrooms that matches the aspirations of curriculum reform?

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[16]This is an argument made by Stenhouse (1975).

[17]David Hamilton has recently challenged this assumption in an important study of the origins and development of the classroom as 'a technology for teaching' (Hamilton 1989).

[18]Early studies in this area include the work of Clark & Yinger (1979) and Berliner (1987). The related work of Carroll (1963, 1984) and Shulman (1987) has been very influential in the development of tests of teacher competence.

SECTION TWO
THREE CASE STUDIES IN CLASSROOM/CURRICULUM RESEARCH

The study of chaos has provided a seemingly paradoxical insight: that rich kinds of order, as well as chaos, can arise - arise spontaneously - from the unplanned intersection of many simple things. . . . Energy ebbs away, yet structure emerges. . . . Entropy's worst enemy is life itself.

(James Gleick 1991)

We do not want to deny that case study research has, in addition to the propensity for intrusion, several important defects. It is costly, wordy, subjective, biased toward attention to social interaction, seldom sufficiently cautious in interpretation, and its regimen of inquiry (or lack of it) is difficult to establish. Yet to probe some complex phenomena, it can be the best way to go.

(Robert Stake, Liora Bresler & Linda Mabury 1991, p. 12)

This section includes a sequence of three case studies, beginning with a conventional ethnographic approach but moving, in successive studies, away from it.

Chapter Three
Strawberries
A conventional participant observation study in a secondary science classroom which seeks to relate curriculum and pedagogy and concludes by looking at the ways in which the classroom identities of students and teachers are formed differently (over time) in formal and informal classes.

Chapter Four
Teaching That's a Joke
Continues a theme introduced in Ch 3, that jokes and joking are a significant indicator of different forms of social relationship located in different forms of social setting.

Chapter Five
Stations
Takes the idea that jokes provide a significant indicator of different forms of social relation and uses it to examine the role of one teacher in an innovative school. This requires a shift in methodology away from the conventions of educational ethnography. Questions about the relation between author and subject and text take on a new significance.

Chapter Three
STRAWBERRIES

We see nature in glimpses, even as we live within it. . . . The contention of the new science of chaos . . . is that seeming irregularities can be contemplated, sorted, measured and understood. . . . [Scientists now] . . . accept Mandelbrot's challenge: to scutinise, rather than dismiss, the apparently formless; 'to investigate the morphology of the amorphous'.

James Gleick (1991)

During the 1960s and 70s a large number of curriculum development projects and programs were established in countries throughout the world. In Britain one of the largest and most influential was the Nuffield Science Teaching Project, a wide ranging program which attempted both to modernise curriculum content and implement discovery approaches to science teaching.

The early Nuffield Science Projects put most of their effort into conceptualising subject material, devising novel experiments to demonstrate difficult concepts, and documenting their work in the form of course guides. What curriculum workers now call 'implementation' appears to have been a peripheral concern[1], as was 'evaluation'. Those who would use the new materials were seen to be a relatively restricted group; science teachers in the grammar schools; and the professional networks adequate to ensure that everyone would know what was involved. The notion of a large unknown 'market' for Nuffield Science would have seemed strange to those working on the first round of projects for they felt themselves to be securely located in a context that made such ideas sound foreign (even 'American'). Their view of their role, function and identity was located in a notion of *gemeinschaft* rather than *gessellschaft*[2].

In retrospect it is not easy to tell whether it was the advent of comprehensive secondary schooling in the mid-sixties that created the ground for a concern with questions of implementation and evaluation, or whether it was the sheer expansion of science teaching that this implied. Certainly the teaching of science in the new, large comprehensive schools meant that many new questions were asked, about mixed ability teaching, about school organisation and timetabling and about the demanding intellectual content of the O-level projects. There was also evidence of competing educational ideologies, for

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[1]A significant exception was the concern of the O-level Chemistry Project to develop examinations which adequately tested the understanding of chemical concepts that were central to their view of the subject (see Mary Waring's account of the history of the Chemistry project, Waring 1979).

[2]The terms *gemeinschaft* and *gessellschaft* were first used by the nineteenth century German sociologist Frederik Tonnies (1955) to depict the shifts in social relations as European economies changed from agrarian village life to industrialised cities but they can be seen to have a wider significance in contemporary society.

instance in the strong secondary modern school orientation of Nuffield Secondary Science[3] in contrast to the grammar school values implicit in the O-level projects. But often we overlook the fact that the expansion of science teaching to cater for the majority of an age group that was itself much larger than in previous years (the post-war 'baby boom') had significant consequences for science teaching. It was no longer easy to think of the community of science teachers as a club of enthusiasts, most of whom knew one another. 'Implementation' and 'evaluation' became important concerns because of a breakdown in trust and understanding derived from shared values that could, to some degree, be taken for granted in small professional circle.

The problem of how to evaluate Nuffield Science not only became increasingly visible but increasingly complex with the advent of these wider system changes. Existing evaluation models derived from experimental psychology were quickly seen to be inappropriate because they required a capability to control variables which could not be achieved in schools. When, in the late nineteen sixties, the newly-formed Schools Council began to advocate evaluation as an implicit feature of curriculum development, and to require an evaluation component in the organisation and design of its projects, those projects that derived from Nuffield Science resisted. The inclination of project teams was to place faith in the professional judgement of science teachers and HMI (and in the comprehensive schools, headteachers, and LEA science advisors), itself perhaps a reminder of the origins of Nuffield Science in the Association for Science Education.

Starting points for evaluation

One way to begin (following the advice and precepts of HMI[4]) was to observe a range of Nuffield Science classes in action. Initial and unsystematic observations of a number of science classes adopting Nuffield Science showed that this was more problemmatic than it seemed, for the use of the terms 'Nuffield' and 'traditional' to differentiate approaches to science teaching, while they were terms used extensively by curriculum workers and by teachers, did not seem to relate to what happened in the classroom. Some 'traditional' (or perhaps better, 'non-Nuffield') classes appeared to be working in ways that were similar to those apparently suggested by Nuffield Guides; such classes involved a large amount of experimental work, some of it conceived by the students, and on topics similar to those suggested in the guides. On the other hand, classes that professed to be 'doing Nuffield' sometimes appeared very conventional. Many of the curriculum development teams would joke about the 'Nuffield' teacher who taught the

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[3]I have written about the close association between Nuffield Secondary Science and the Newsom Report elsewhere (Walker 1979a)

[4]The study reported in this chapter has its origins in the fact that, in 1968, I was appointed to the then Centre for Science Education (the second 'home' of Nuffield Science) to develop research on the implementation and evaluation of the project. During that year, Norman Booth, Senior Staff Inspector of Science, who had played a significant role in the Project was seconded to the Centre.

whole course by dictating notes to the class. While the alternative exams devised to assess the Nuffield courses were designed to discourage this kind of adaptation there was some doubt about the extent to which the alternative exam papers really demanded different forms of classroom practice.

As the Nuffield Science project/publications became more familiar to teachers, 'Nuffield' and 'Non-Nuffield' classes became more and more difficult to distinguish, and the categories more and more blurred. Curriculum development staff began to make informal distinctions between exemplary practice ('true' or 'real' Nuffield Science), and notional or nominal adoption of the projects ('using the Nuffield materials but not really a Nuffield lesson'). It is important to emphasise that this observation, which some saw as a 'dilution of the Nuffield spirit' is not made here in a spirit of criticism. There is no doubt that important curriculum changes occurred as a result of Nuffield Science and indeed some might argue that the fact that Nuffield was not adopted in a 'pure' form accords more closely with the Project's ideals, than if it has been implemented uncritically and unadapted to local conditions and circumstances. I make the point simply to establish, in the context of classroom research, that the use of terms like 'Nuffield' and 'traditional', while they might usefully distinguish ideal types of science teaching, or sets of ideas or assumptions or values held about science education, do not adequately distinguish the events to be observed in classrooms.

The range of things you might encounter in any classroom to which one of these labels is attached are considerably greater than the differences each label indicates. Classroom events are not so easily demarcated, labelled or described as the use of the labels seems to indicate. More specificity is required. It does not make much sense to say, 'This is a Nuffield Science lesson', but you can say it is a 'first Year class following the Combined Science Project', or that 'It is a class using the Biology Guides as a basis for introductory genetics'. Even then you need a good bit more information before you can begin to build up a picture of what you might be likely to see if you were to observe the class at work. You need to know how the teacher has organized the tasks, what she/he is hoping to achieve in a particular lesson, what resources/materials/equipment are available and how they are used, how the lesson fits into the teacher's overall intentions for this class over a period of weeks or even longer. You might also want background information on the school, is it selective? Co-educational? Mixed race? And perhaps information on the teacher, what is her subject specialism, training, experience? When we once tried to list the kinds of questions that student teachers might want to ask before they went to observe lessons taught by teachers who were involved, one way or another, in the NSTP, we came up with a list several pages long[5].

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[5]We provided a similar list for student teachers in Walker & Adelman (1975), p. 13-16

It seems perhaps a simple point to make, but the conditions that influence what goes on in the classroom are many and complex, no single variable is likely to distinguish adequately between different kinds of teaching. Classroom research has generated a large number of sophisticated observational methods[6] but any evaluation that attempts to make use of these methods within a design that hinges on making a distinction between 'Nuffield' and 'non-Nuffield' classes is in danger of misusing the power of available research.

It is one thing to criticise available evaluation models, but another to create an alternative. Given the brief (by the Project) of reporting on the changes in classroom roles implied by Nuffield Science, it seemed to me that what was needed was a better language for talking about what was happening in the classroom. A language that had some of the rigours of research but was accessible to, and usable by, teachers. I began by observing a range of classrooms, Nuffield and non-Nuffield, science and not-science in order to find words for talking about the variety of things I encountered.

'Formal' and 'informal' situations.

A key distinction that emerged early on in this attempt to re-orientate my thinking was the distinction between what I called 'formal' and 'informal' classroom situations. These terms have since come to be used somewhat loosely, especially in the debates that followed publication of Neville Bennett's (1976) study, but I used them in a quite specific sense. Essentially, by formal' classroom situations I meant situations where there was, at any one time, only one speaker and every one else was a listener. Formal situations would therefore include the teacher lecturing to the class, class 'discussion', teacher questioning of students in the context of whole class teaching, and the whole class watching a demonstration experiment. I used the term 'informal' to describe situations where there was more than one speaker and where any individual (teacher or student) only had partial access to what was being said. Informal situations would therefore include various kinds of group and project work, 'circus' arrangements (as in Secondary Science for example), and many individualized learning schemes.

I have described my use of the categories 'formal' and 'informal' in more detail elsewhere. (Walker 1971, p. 149-180; Walker & Adelman 1975, p. 38-71) I want to emphasize here that I am not offering this distinction as a replacement for the terms 'Nuffield' and 'traditional' in the sense that I think all Nuffield classes are likely to be informal, and all traditional classes formal. Most classes will operate in the formal and the informal mode within any one lesson, and over a sequence of lessons there may well

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[6]These have been catalogued by Boyer & Simon (197) and by Galton (1978).

be significant shifts in the use made of each type of activity. Nor do the terms imply any necessary overlap with enquiry, discovery or instructional modes. What I do claim is that the terms 'formal' and 'informal' distinguish types of interaction and activity that are qualitatively different. They are different in that they require different kinds of action and activity on the part of students and teachers. What is an appropriate action in an informal mode may well be inappropriate within a formal mode. The terms formal and informal do not simply distinguish different ways of organizing a class but relate to different kinds of social communication structures, which in turn, involve different roles and, perhaps, different kinds of learning.

The rest of this chapter attempts to follow this assertion through some of the empirical data that emerged from attempts to observe in classes which seemed to typify the distinctions between predominantly 'formal' and predominantly 'informal' forms of classroom organisation.

The meanings communicated by talk

At this point I want to shift the angle of approach. In the previous two paragraphs I asserted that there were important and significant qualitative differences between formal and informal forms of classroom organization. I want now to go back to the research that lay behind that assertion, and to describe how it was I came to realize its importance.

One of the first classes I observed in detail was a low stream, fourth year group in a North London boys' Secondary Modern School. I was first directed to this class by John May, who before joining the Nuffield Secondary Science Project had been head of science at the school. John introduced me to Jim Binham, a teacher who taught this particular class for about half of the timetable. He taught not only science, but English, maths, social studies and RE. This was not the normal timetable arrangement for remedial classes (which were not specifically recognized as such) but Jim's preference. He felt that if he was to get anywhere with this class, he had to teach them for more than the few periods a week allocated to science. Moreover, this arrangement had built up over a few years, so that by the fourth year, teacher and class knew each other extremely well. In a school that prided itself on its academic achievements (it was one of those secondary modern schools with exceptional O-level pass rates, especially in science), most of the school were happy for one teacher to take what was seen as a 'difficult' class off their hands. I was directed to Jim Binham because John thought him an exceptional teacher. During a conversation about the nature of the 'Nuffield Approach' he had said to me, 'If you could only find out what makes him tick we would be in a much better position to know what we are doing'. Well I cannot claim that I ever succeeded in finding out what exactly what made Jim so exceptional in the eyes of his colleagues, but I did start by looking closely at what actually happened in his lessons.

Here I want to consider one aspect of Jim's classes, his use of humour. This related to the starting point I have just outlined in that a senior science advisor in the ILEA told me that what characterized those teachers he thought of as 'good' or 'exceptional' was the quality of the relationships they had with those they taught. 'It is all about good relationships', he advised me, 'everything else follows from that'. While I did not want to foreclose on the possibility that good relationships were a consequence of effective teaching/learning, rather than a necessary and sufficient prior cause, I had to admit that one of the things that dominated my observations was that this classroom was a pleasant place to be. It was ordered and hard working, and it was rare to hear a raised voice, or any sign of anger or tension. There was also quite a lot of joking and laughter. I began to listen more closely to what it was that the class found amusing

Example

Student	(Working through text exercises in English) 'Business is brisk when this is roaring . . .? Trade
Teacher	Roaring trade - I don't quite know the origin of this. It may be -
Student B	Lion tamer
Teacher	Lion tamer? (*pause*) Roaring trade (*pause*). Oh very witty, very witty.

This example is I think quite straightforward, an example of pure wit deriving from a play on words; almost a Christmas cracker joke. The teacher's response is interesting for he makes a performance out of it, seeming to delay the joke to draw it out, acknowledging the joke eventually by recourse to mock sarcasm. And this should not be thought of as diversion from the curriculum, for in some ways it is closer to what the teacher is trying to teach than the exercise itself, for one of his major concerns is to encourage the boys' confidence in the use of the spoken word and to give them some sense of complexity and history of usage.

I referred to this first example as 'pure' wit, because the joke emerges intact from the transcript, but the humour was not always so transparently context free.

Another example from the same lesson:

Teacher	What is a couplet? If it has got 'et' on the end, it means what?
Student A	A little.
Teacher	Little what?

Student A Couple.

Teacher A little couple, or a little pair. A little pair or couple of . . (*looking hard at C.*) . . . sentences or expressions. (*Pause*) C., we know . (*laughter*)

This illustrates a classic form of student joke, picking up in the teacher's usage inadvertent connotations, particularly those involving sexual innuendo. Like the first example it reveals the indeterminacy of meanings, for in what appears to be a straightforward, almost scripted exercise unintended meanings can be released by the use of quite subtle shifts and emphases.

One of the reasons both jokes are seen as funny is that they provide unexpected and bizarre shifts in meaning in what seems, superficially at least, to be a highly determinate series of utterances. It is as though the talk simultaneously carries a whole series of different levels of meaning which, most of the time, are dominated by relatively surface common-sense meanings intended by the speaker. In the perceptions of the listener however, it is possible to tune to other messages, carried by voice tone, phrasing, or simply triggered by association. What is needed to make jokes like this work is some sharing of that process. The jokes function as sparks which short-circuit the insulation between common-sense intended meanings and other possibilities inherent in talk.

As most of know from our own experience, this is a process, which once released in a group can develop at a rapid rate, and most teachers learn ways to control it. This teacher tends to rely on being a step ahead of the game, and on turning the joke back in such a way that the joke itself becomes a joke; his joke. The first example I think illustrates this means of regaining control quite effectively, though it is important to remember (and this is a point we shall return to in the next chapter) that it is in one sense a dangerous game to play, for once having let jokes enter classroom discourse, the teacher can never quite be sure of total control over the process.

The two examples that follow also rely for their effect on the fact that it is impossible to communicate more than one meaning simultaneously. They differ from the two examples given already in that they are less transparent in transcript, the reader needing additional information that was available to those present at the time if they are to catch the full meaning of what was said.

Example
Teacher: Right, will you all sit down. Plumb, I can't tell if you are sitting or not. (*laughter*)

Example
Teacher: 'Personification' is when you take something which hasn't got a body, or something visible (*pause*) something abstract and you sort of clothe it in flesh or being. You make a person out of it. In Primary School when they have these sort of plays, like about the Good Fairy. They have someone who comes in and says 'I am the Fairy of Truth, and whoever follows me will do well'. And this person is the personification of truth. Then you get someone come in and say, 'I am wickedness. . . .' You remember these things? Alan, which one were you (*pause*) 'I am appetite?' (*laughter*)

These jokes rely to some extent for their effect on the fact that everyone knows that Plumb is the smallest boy in the class and that Alan has a reputation for being the greediest. They are examples of the teacher assigning roles/identities to individuals, perhaps in part for control purposes[7].

All the jokes quoted so far were freely available to an observer, I could laugh too; but there were some jokes that were not so obvious. For example in one lesson the teacher was listening to the boys take turns to read out loud to the class short essays they had written for homework on the subject of 'Prisons'. After one boy had finished reading out his rather obviously skimped piece of work, the teacher sighed and said, somewhat crossly:

Teacher: Wilson, we'll have to put you away if you don't change your ways and do your homework. Is that all you have done?

Student: Strawberries, strawberries. (*laughter*)

After the lesson I asked the teacher and some of the students why this was funny. They told me that one of the teacher's favourite expressions was that their work was 'like strawberries - good as far as it goes, but it doesn't last nearly long enough.'

The reason I had not heard this before, the students explained to me, was that it was a remark the teacher had not used for a long time, but the students remembered it, and indeed part of what made the joke so amusing to them was that a student had seen just the right context in which to place it, as it were beating the teacher to the draw.

For those who see the essentials of teaching in the transmission of knowledge this incident might seem trivial and irrelevant, because in terms of instructional objectives it functions as a diversion and is peripheral to the main purpose of the lesson. I want,

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[7]See, Louis Smith's account (Smith & Geoffrey 1968) of how the role of 'court jester' emerged in one class, quoted in Chapter 4.

through the use of this quote, to dramatize and highlight an important aspect of classroom interaction that is often missed by those who use interaction data as the basis for research.

It is, I think, often assumed that the meanings communicated by talk are transparent. So long as we have encoded in our memories a common set of dictionary labels, then we can have as complete access to the meanings embedded in an interaction as those who are directly involved. As an approximation this may hold true when we look at many classrooms, because they are not stable enough settings for people to build up personal and private meanings, but in some other classes this assumption ceases to hold. In many primary school classes, and in classes like the one I have been describing, where teacher and students spent a lot of time together and know each other well, meanings come to take on a set of connotations that are private as well as public. In such settings words do not simply have universal dictionary meanings that we learn from general cultural experience, they also have associations and particular, personal meanings not readily accessible to those outside the immediate experience of the group. (I use the word group, rather than class, deliberately for the group is in some sense united by the possession of shared memories.)

This is, of course, a fact well known to those sociologists who have studied groups that are rather more self-contained than school classes. So-called 'deviant' groups in particular are often found to have developed a lexicon and a set of linguistic routines which separate 'insiders' from 'outsiders'. (For example, Becker 1963; Polsky 1971; Labov 1973) What is less often realized is that less exclusive groups to some extent mobilize the same process in a weaker form. For instance some teachers seem able to use the way they talk (and by this I mean the full range of attributes from voice quality to forms of expression) to create a sense of private domain, which functions to protect their students from the abrasive demands of the institution[8]. These overtones can easily be missed by the observer or the analyst who looks at classroom interaction only in terms of the universal meanings freely available within the culture at large, and so misses much of the full richness of talk, which in some cases may be what makes it valuable and unique to its participants.

It is remarkable just how much we can reconstruct on the basis of a few lines of transcript, but what is harder to grasp I would suggest are private and personal meanings stemming from shared memories and shared experiences - in short all those meanings that Bernstein (1958, 1959, 1966) describes as the domain of the 'restricted code'.

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[8]The phrase is borrowed from Philip Jackson (1968), who has studied the ways in which 'exceptional' teachers act both to teach and to soften institutional demands.

I would also suggest that the accumulation of these meanings is to a considerable extent, dependent on long-term immersion in what I have called 'formal' settings. The kinds of jokes I have described, which in turn are indicative of a particular set of ways of using language, are dependent on the establishment of an attentive and receptive audience, they really need the context of whole class teaching if they are to work their full effect.

Studying the informal

One of the first problems that arose when this analysis was applied to a class that was predominantly 'informal' was that the data were virtually inaccessible. In the class I have just described I could sit in a spare desk and listen. In fact I spent about two terms in the class, visiting up to three lessons a week. I also collected a number of hours of tape recordings of lessons, and it is from some of these that the examples given above were extracted.

A little further on in this chapter I shall be using some comparable quotes extracted from an 'informal' setting, but first I should say a little about the context of the study.

The school is a purpose-built comprehensive junior high school in Leicestershire. The teacher I have chosen to look at here is in some ways comparable to the teacher whose class I have described already, a science teacher who also chooses to teach some of his science classes English and social studies. His reasons though are somewhat different, for the class is a mixed ability first year class and contact with one teacher was intended to help them bridge the gap between their experience of primary school and what they would be likely to encounter in the more specialized surroundings of the high school. It is therefore intended as a transitional arrangement to help bridge the organisational disjunctions in a three tier system.

Unlike the previous class, to sit in one of these classes was to gain only a partial picture of what was happening, for the teacher typically spent most of the lesson moving around the class spending considerable periods of time talking to individuals and small working groups. The only way to hear what the teacher was saying was either to follow (when you tended to become part of the interaction), or to listen at a distance by use of a radio microphone.

I chose the latter tactic, but then another problem emerged, for listening back to the tape it was difficult to reconstruct what had happened, the tape did not in itself locate where in the room the teacher was or identify to whom he was talking. It was not always clearly marked on the tape (by linguistic signals of one kind or another) when one encounter

ended and another began. So parallel to the tape ran a time lapse film which recorded what was happening at 2 second intervals. This film was synchronized to the tape by a pulse. In fact two cameras ran simultaneously, one following the teacher in a relatively narrow angle so as to pick up changes in posture, gesture and expression and another, with a fixed wide-angle view, located what was happening in the class as a whole[9] . With currently available equipment it would be easier to use video tape recording but at this time the only video equipment available was large scale, intrusive, expensive and required technical staff to operate it.

It is important to emphasise that these developments in technique are not simply technical. The need for more contextual information in order to make sense of the audio tapes is itself an important indication of a qualitative shift in communication structures between formal and informal situations. In the formal situation the context is relatively fixed and easily reconstructed from the transcript. In the informal situation this is not always so. In the informal situation, the transcripts themselves read less like the scripts for stage plays and more like the dialogue lines from a film script. Reading the transcript, it is not always clear who is speaker and who is listening, and because the teacher is inevitably acting within a smaller circle of attention, the use of posture and gesture operate on a more subtle and less readily visible scale that cannopt be assumed from the dialogue.

Earlier in this chapter, in discussing the evolution of student identities in the predominantly 'formal' class I gave considerable significance to the fact that the teacher and class together constituted an audience to whom most actions and statements were referred. Class visibility, I claimed, was a key to understanding the kinds of identities teacher and boys were able to make. In the informal class this is no longer the case: the dominant audience tends to be the friendship or work group, talk (whether involving the teacher or not) tends to become localized. This means that children cannot develop viable social identities through the creation of expectations amongst a large and attentive audience. They have, instead, to project themselves fairly continuously through face-to-face interaction, a process which requires rather different skills tothose seen to be typical of the formal class.

It is clear now why I have tended to use the term 'identity' rather than the more commonly used term 'role'. For following a useful critique of the use role theory by Ward Goodenough (Goodenough 1965), I feel it is important to separate the *social* from the *personal* aspects of 'role'. In the formal situation social identities are involved - that

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[9]This equipment was developed by Clem Adelman, for technical details see Adelman and Walker (1975).

is to say parts are played, even though they are not scripted, and expectations are created in an audience, who in turn support the part. The different social identities taken by individuals interlock into something equivalent to the grammar of a language; the whole becomes an organic social structure which in some ways fits the metaphor of a stage play. In informal situations, however, it is predominantly *personal* facets of identity that are mobilized to sustain encounters. The boundaries (what Bernstein 1971 calls the 'frame') between life outside the classroom, and life inside, are weakly drawn and constantly negotiable.

Joking relationships

In the first part of this chapter I looked at jokes as indicators of the kinds of relationships that were found in one formal class. Jokes are also found in informal classes, but they tend to be of a different character, and appear to play a different role in maintaining the fabric of classroom social structure. What characterizes the informal class, I shall argue, is not the joke, but the joking relationship[10]. That is to say looking particularly at child-teacher interaction, what counts in the formal situation tends to be some skill in the use of wit, teacher and student engaging in a form of verbal duelling[11] in front of the class. In the informal class, however, what counts is the ability of the students to create and sustain distinctive identities by projecting themselves through a unique form of relationship not shared by others in the class.

In an attempt to illustrate this I want to look at the relationships two children have with the teacher in the informal situation I briefly described above. The first example I have quoted is extracted from a running conversation in an integrated English/Social Studies lesson.

Example 1

Karen	Colin, can you sent that letter off please?(2.4,[12]*laugh*)
Colin.	Watch it (3.2 um). That letter. Yes, that letter. Tell you what Karen, I'll make certain it is sent off (2.4 um).
Karen.	Miracles.
Colin.	You know the science area?

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[10]The notion of 'joking relationships' derives from anthropology, and particularly from the writings of Radcliffe Brown (1953). This idea is discussed further in chapter four.

[11]Verbal duelling is a social feature well-known to sociolinguists who have studied Afro-American English. See, for instance, Labov (1973).

[12]Figures in brackets indicate pauses in seconds.

Karen. Wonders'll never cease. Oh I'm not going over there.

Colin. Yes, know my room in the science room? (2.2)

Karen. Yes.

Colin. If you go over there-with that key you'll find my case on the floor.

Girls Oh that's too lovely. Oh Colin.

Colin. Bring it over-your letter's in it.

.....

Colin. You've just done what?

Karen. I've written it in my own words.

Colin. Oh well, providing you're making (0.2) it very brief.

Karen. Oh yes *now* you tell me.

Colin. You seem to have torn it up again - you're good at this aren't you. You're so *impatient* Karen (2.0) um.

.....

Colin. - and you want a bloomin' envelope. You can't find it? It's in here. (5.6) Excuse me girls, could you conceivably let me - let me get to my (0.4) drawer. Thanks. Come on could you get out of the way (4.2) *Next time* you want to go there Karen-

Karen. Where?

Colin. - it's that one *there*. Alright?

Karen. Oh *you* said the second one on the left-hand side on -

Colin. I meant the right-hand side.

Karen. Ooh!

Colin. The second one down - alright? (1.2) Now the only thing you're going to need *next* is going to be the address isn't it?

Karen. You (0.6) You! Oh!

Colin. Relax - I was about to give you the address - OK?

Karen. I don't know why I waste my breath! (2.4)

Even without the intonation and phrasing it is clear that the talk here is of quite different quality to that quoted earlier. In many ways I feel it is more like everyday conversation, with Karen (the student) and Colin (the teacher) moving further away from the conventional roles of teacher and student than we saw illustrated in Jim Binham's classroom.

One of the consequences of looser boundaries is to raise the indeterminacy of interaction sequences. In these quotes it is more difficult to predict what is likely to come next, not only for the reader, but for the participants too. In this situation it becomes difficult to do what we saw students doing earlier, that is building up an identity on the basis of an ability to induce a degree of tension between was expected to be said, and what was actually said. The bounds that contain what is expected are here not tight enough to leave a margin for that kind of humour, and lacking an adequate audience, students are not able to use that means of establishing their identity within the class.

Instead we see, I would argue, Karen creating an identity for herself by insistently (if jokingly) playing on an identity she ascribes to Colin as likeable but inefficient. She uses her fluency to manage incidents, implying all the time a particular definition of the situation, which in turn implies an identity for the teacher. She therefore creates an identity for herself, not as a public figure in the class, but through her ability to use talk to establish and sustain a unique relationship with Colin; her identity is dependent on her image of him and her ability to make it stick in her encounters with him. It is, I might add, a kind of relationship that is only possible in relatively long-term and intensive relationships, and in this sense the reader might find more parallels in home or work relationships than in typical secondary school teacher-student relationships.

Karen is one of a group of girls who work together, and the whole group to some extent extend and amplify Karen's relationship with their teacher. Using Bernstein's term, it could be said that this relationship is constructed within the 'frame', for though it stretches the conventions of teacher-student relations, it does remain within them, at least as they are maintained in the context of this school and this class.

In contrast, Benny, the second student I want to consider has a relationship with the teacher premised on his constant ability to move outside the frame. Unlike Karen, Benny is something of a social isolate within the class.

Colin. - Benny (0.8) I've heard too much of you for the past five minutes wandering around the room - what are you doing? (1.8)

Benny. Me? (0.2) I'm doing writing. (0.8)

Colin I can *see* you're doing writing but *what* are you doing? (1.0) Come on - what's this here?

Benny. Bird.

Colin. Well what bird is it?

Benny. Ooh (0.4)

Colin. Well come on you put it here - what is it? (1.6)

Benny. Giant Beak.

Colin. No it's got a name Benny.

Benny. No it's got a beak 'n'it.

Colin. Yes, but what's its *name*?

Benny. Well it's one of them i'n'it.

Colin. It's the Hornbill, good.

Benny. Hornbill.

Colin. Now make certain next time you know what it is. What's this one up here? (0.6) This big bird? (0.6)

Benny. The Hornbill it?[13]

Colin. *That's* the Hornbill. Now 'it' is the beginning of that sentence. These are the things they eat are they?

Benny. Yes. (0.4)

Colin. Right. What are they? What's *that*?

Benny. Worm. (1.2)

Colin. Caterpillar

Benny. Caterpillar (1.0) One of them - bugs that grow on trees (2.2)

Colin. Greenfly? (2.4) Is that what you mean? Is that what it's called?

Benny. Yea (0.0)

Colin. Right.

Benny. And that's er (2.2) What do you call it. What you 'ave for breakfast.

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[13] Said with steeply rising intonation on the last syllable.

Benny. - Sometimes (1.6) Oranges. What 'you call 'em? (1.4) *Red* things.

Colin. That you have for breakfast? (0.6)

Benny. *Some*times

Colin. Oh - it is-it isn't a living thing this?

Benny. *No*

Colin. Strawberry.

Benny. *Yes*

Colin. Do you have strawberries for breakfast?

Benny. Yea

Colin. Do you really?

When Colin talks to Benny his speech is slower and his intonation more marked. Where Karen hurries the conversation along, Benny's remarks are often so unexpected that they demand a considerable amount of remedying and filling-in on Colin's part if the encounter is to be sustained. Whatever the reasons for Benny's somewhat startling manner of talking (and there is some evidence to suggest to the teacher that they are in part due to unusual perceptual difficulties), their effect is to constantly place Colin in a position where he has to think carefully before he speaks. In part he does this because he is not quite sure what Benny is saying, but also because he does not want to obscure the situation further by saying things himself that might increase ambiguity. Colin expects not to understand Benny fully, so that when he talks to him he expects Benny to produce the puzzling and bizarre. This expectation and his response to it, of simplifying and carefully monitoring his own utterances, itself sets his relationship with Benny to some extent apart from other relationships he has with the class. In fact Benny can so undercut Colin's expectations that he is able, linguistically at least, to reverse roles, as at the end of the sequence I have quoted, where Benny has Colin groping for the word 'strawberry', in a way very similar to the way teacher conventionally make students guess at words.

Teachers' classroom identities and the problem of control

In this chapter I have looked at some of the differences between teacher and student roles/identities in a formal and in an informal classroom. I have used selected quotes from two lessons in order to illustrate these differences, though behind the analysis lies a good deal more material that I have looked at in some detail and with some care.

To summarize the distinction: the teacher in the formal situation is constantly 'on stage', having learnt those ways of becoming and remaining the centre of attraction for the class which best suit his/her own abilities and social skills. At the centre of this performance is the ability to 'control the class', which appears to involve both classroom organization and a strongly projected social identity, a social identity that may be markedly different to the personal identity of the teacher 'off stage'.

The teacher in an informal situation may be invisible to all but a few students for most of the lesson. Classroom control in such settings is more a matter of organization than of the presence of the teacher's authority (though this may well be more significant than appears to the observer). The identity of the teacher in the informal class is personal rather than positional, she/he seems to be much the same person outside the class as within it.

It is important to emphasize that this distinction does not simply describe kinds of classroom 'style' or 'personality' available as options to teachers. The distinction is one that relates different kinds of teaching to different kinds of classroom communication structure, and perhaps, in turn, to different forms of learned outcomes. In contemporary usage what is being examined here is a structural feature that underlies what are currently referred to as – different classroom 'genres'[14].

Coda

One particular implication to note is the consequence for the teacher of becoming part of the informal (in the more usual sense of the term) social structure of the class. Typically, teachers keep a certain degree of distance between themselves and their students. One of the functions of this distancing is to preserve a degree of 'fairness' or equality in the way individuals are treated. This is more difficult for the teacher in the informal setting, for friendship and work groups tend to become a more integral part of classroom organization, and the teacher may become more closely drawn into their intricacies. (Colin's interactions with Karen could be interpreted as a game in which he is trying to regain distance and she is trying to reduce it, in a context where he is encoraging intimacy and she, distance.)

It may be helpful at this point to refer to a little known study by John Withall (Withall, 1956). Withall studied teacher-student interactions at an informal art class using a sequence of still photographs (taken at 15 second intervals) in order to count the number of interactions between the teacher and individual students in the class. The teacher

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[14]The notion of genre as a concept for examining classroom discourse has become a major feature of debates in language teaching which focus on 'process writing vs genre'. The debate has been summarised by Reid (1987).

incidentally emphasized developing the individual work of his students and felt he did a reasonable job in helping each student with their own work.

Column one in the following table shows the distribution of the teacher's contacts with individuals in the class over eight lessons:

Table NUMBER OF CONTACTS PER HOUR FOR EACH STUDENT BEFORE (Col 1) AND AFTER (Col 2) THE TEACHER'S ATTEMPTS TO EVEN OUT CONTACTS WITH EACH STUDENT[15]

Student	Column 1	Column 2	Student	Column 1	Column 2
A	5.5	23.7	N	62.8	46.4
B	34.5	25.6	O	4.7	6.2
C	17.7	28.8	P	29.3	45.4
D	9.6	53.7	Q	4.6	44.4
E	6.7	11.2	R	5.9	12.3
F	37.6	72.6	S	20.2	18.2
G	24.1	absent	T	22.5	13.9
H	4.2	1.6	U	12.1	22.4
I	26.1	absent	V	5.8	13.1
J	4.3	7.0	W	6.9	4.8
K	17.1	12.0	X	4.9	29.8
L	13.3	35.3	Y	1.9	8.1
M	9.4	31.5	Z	18.0	27.6

Column 1 reveals a marked difference in the dispersal of teacher contacts amongst the class, and further, Withall notes those children who received most attention tended to be those with the highest IQ, who were themselves most popular amongst the class.

In conversation with the teacher, John Withall reframed the research problem:

> The conscious attempt by the teacher to spread his attention more evenly within the class came about as a result of a discussion which the researcher had with him during one of their regular staff meetings. At this meeting we discussed the problem of some of the isolates in the class. We were impressed with difficulties facing these individuals some of whom, besides being rejected in everyday situations by their peers, seemed also to be 'neglected' by the teacher. It was agreed that both the 'fringers' and 'isolates' and the 'neglects' might be helped if the teacher began to evidence a greater interest in them and their work. The researcher and the class teacher agreed that up to this time little rapport seemed to have been established by the teacher with certain students, notably: Q,X,A,O,W,R,C, and L. The teacher was greatly impressed with the findings we had made from an analysis of the classroom interaction and was only too anxious to do what he could to alter the situation that existed. He, therefore, undertook, deliberately, to work more closely with those eight whom we had specifically identified as well as the others in the room whom he may previously

[15]Adapted from Withall (1956) pp. 207, 209.

> have tended to overlook. As a result of the teacher's efforts to redistribute his time so that the 'neglects' would get a greater share of his attention, we were able to collect data on several 'controlled' sessions. These data are presented in column 2.
>
> (Withall 1956, p. 208)

Comparing the frequency of teacher-student contacts before and after the teacher's attempt to control his interactions with individual children reveals a number of changes. First, column 2 shows a marked increase in the overall rates of interaction, which presumably indicates the teacher making more, shorter contacts with individuals. (column 2 shows an increase of 9 in the mean number of contacts per child per hour - or a 57% increase overall, as compared with column I.) Second, some of these students 'lacking' contact in column I, gain by column 2. For example, Q, described by Withall as 'a fringer in the peer group, rejected by the boys, with more of her share of pubescent problems, and the youngest in the class', increases her contact with the teacher considerably. On the other hand, H and Y remain 'neglected'. Third, while a teacher seems able to redirect his attention to other students, looked at overall, the distribution of contacts remains highly skewed to certain students at the neglect of others.

It would be wrong to generalize too far from this study, and unwarranted to assume that the class I described earlier was directly comparable. On the other hand there do seem to be some parallels between the problems faced by this teacher and the problems faced by Colin. In particular it would seem that in the informal class, friendship groups become an important organizational element, mainly through the differentiation and allocation of tasks, and the fact that contact with the teacher becomes a scarce resource. The teacher in the informal class does not encounter friendship groups, as the teacher in the formal class does, as a hidden agenda, but as part of the surface structure of the situation. In a sense the teacher is trapped in them, for they *are* the existing social structure through which she/he must work, and there is little that can be done to change them.

It follows that a major issue for the teacher may become the management and handling of student-student relationships in relation to work and task groups. For example, Karen, in Colin's class is a member of a clique of girls who form the most cohesive friendship group in the class. Benny, on the other hand, is both an isolate and more isolated. In a formal situation perhaps their identities would be lost, at least superficially, in the similar roles they would need to take, and they would be treated more or less similarly by the teacher, in that they would for most of the time act as audience with equal access to what was said.

In the informal situation their different identities come to the surface and are made more visible, in Bernstein's words, 'more of the child is made available for control' (Bernstein 1971). This is reflected in some ways in the fact that Karen works with her group of friends, while Benny sits alone. Indeed one of Colin's constant problems is how to extricate himself from the demands made on him by Karen's group in order to get uninterrupted time with Benny. This means that his contacts with Karen's group tend to be brief, but frequent, and his relationship with them marked by teasing and joking, while his contacts with Benny are few, prolonged, conducted at a slower pace and more serious.

I do not make these observations critically, and it may be that when relationships between teacher and student become individualized the fact that each child gets access to rather different facets of the teacher is a good thing. I want simply to make the point, that a consequence of adopting informal forms of classroom organization is to change the experience of teaching for each child in the class. The teacher sees the whole, but each child only sees a fragment, a particular fragment, which might, in some sense be seen as constraint on what is learnt. Individualization, taken to one extreme may be the ultimate in streaming.

It is interesting to note that in a more recent study[16] I have come across the case of a student who intuitively realizes this, and who had adopted a counter strategy. This study was part of an attempt to follow a first year class through all their lessons over a period of one year. The class was a mixed ability group in an Inner London Comprehensive school and the main source of data was a large collection of photographs taken during regular lessons which were used as the starting point for interviewing teachers and students. In maths the class followed SMILE, an individualized maths programme based on the Kent Maths Project. In the photographs collected during one maths lesson the teacher noticed that she spent a lot of time sitting at her desk, and said how much she disliked this. 'When the lesson is going well I spend my time going around the class. When I am stuck at the desk and a queue of kids builds up, that's a sign things aren't running smoothly.' As she looked through a long sequence of pictures of the queue it was apparent that she felt increasingly frustrated by what was happening. In particular she said she felt 'trapped' at her desk by a girl who was particularly demanding in terms of wanting the teacher's attention., but back in the queue appeared Jonathan, an able boy who she would have expected to be able to work through the material on his own. Indeed he is the kind of student that the project is designed to allow to work at his own level and pace, and not have to wait for the rest of the class to catch up. With every picture the teacher said: 'No! This is terrible. Jonathan is still there. I haven't seen

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[16]Reported in Walker and Wiedel (1985), and chapter 9 of this thesis

him! Look he's missed his turn again!' At one point Jonathan stands behind the teacher, his head on one side. 'Look! Look at that! He's still there, and he looks so bored! And I still haven't noticed him!'

When I asked Jonathan what was happening in the pictures I got rather a different story. 'You see I got bored just working on my own. There's just one thing to do all the time. I really like to do more than one thing at a time, and I have found that if I stand at the front I can be doing my own work, looking at what other people are doing as well. Every so often I set down and write a bit more. Then I go and look at the kinds of problems that the others are taking to the teacher. I think I learn more seeing the things the others get wrong than I do by getting my own work right!' I asked him about the picture where his teacher said he looked so bored. 'No', he said, 'I wasn't bored, I was trying to see over the page to what was on the other side. That's why I've got my head on one side.

Again I want to emphasize that I am not trying to be critical of informal, or independent, or individualized forms of classroom organization. My intention is to point out that such classes are not just alternative organizational forms, but that these in turn have quite important consequences for those who teach and learn within them. They are not different ways of accomplishing similar ends. They are simply different, and perhaps more so than we sometimes realize.

It is important too not to overstate the case. In most schools children and teachers have access to a variety of different kinds of teaching, and so looked at overall the categories are less powerful educationally than they might at first seem. Nevertheless, my claim is that an analytic approach which begins by looking at differences between classroom communication structure ('formal' and 'informal', for instance), or even begins by looking at something as apparently superficial as humour, has more power than an analysis which begins from *a priori* distinctions between global concepts (like 'Nuffield' and 'traditional' Science). In short, in evaluating curriculum innovations, pedagogy is at least as significant as curriculum, and a close analysis quickly reveals the limitations of broad categories.

Chapter Four

TEACHING THAT'S A JOKE

I want to take up a theme from the previous chapter and develop it further. The theme concerns the relationship between certain forms of classroom humour and predominant communication structures within the classroom. I argued in the previous chapter that the telling of 'jokes' as a basis of classroom humour, depended on the establishment of a knowledgeable audience, which in turn was a feature of those classes where communication was focused and centralized, or in the terminology I used 'formal'. This form of humour may be contrasted with 'joking relationships', in which the humour derives from 'comic' rather than 'funny' sources, and I suggested such humour tends to be characteristic of classrooms in which close, and to some degree, private, relationships develop between teacher and student. Such relationships tend to be associated with classroom social structures that are, in turn, characterized by a diffused sense of audience focus and communication patterns of a dispersed kind; structures I described as 'informal'.

This tentative line of analysis has been developed by referring to 'ideal types'; models established on the basis of close examination of relevant, but perhaps atypical instances. In continuing to develop this analysis it is appropriate to continue this method of selectively using data to illustrate and illuminate the model. No attempt will be made here to survey classrooms, and while I might want to claim that the analysis is generalizable, no assessment of the typicality of the model, is presented. It is important too, to remember that the starting point for this analysis was concern with a practical problem, namely, what are the consequences for the teacher attempting to make some of the changes in classroom role implied by a number of curriculum development projects? In this context the emphasis is on humour as a useful indicator of deeper aspects of roles and relationships than can easily be reached by using global categories like 'Nuffield' and 'traditional' to differentiate different forms of science teaching.

An initial formulation

The analysis may initially be formulated in diagrammatic form:

Situational structure:	Formal	Informal
Identities (roles):	Joker	Joking relationship
Form of humour:	Jokes	Comic

Diagram 1: Situations, Identities and forms of humour

The distinction between formal and informal situational structures is characterized by the nature of dominant communication patterns in the classroom. In formal situations everyone in the class plays an audience role, (or in the case of silent work) a potential audience, role. For those who are speaking, the established rule of thumb is that for two-thirds of the time someone will be speaking, and for two-thirds of that time the speaker will be the teacher[1].

Informal situations are characterized by teachers who spend most of their time speaking only to individuals or to small groups, and where the rest of the class is predominantly engaged in some activity other than listening to the teacher.

It will be clear that these terms do not, in themselves, provide a basis for categorising classrooms, though they do precisely demarcate different forms of classroom organization. In most classrooms you are likely to find both forms of organization used at various times, but this does not affect the argument in the sense that the claim I am making is that each form of organization makes different role demands on the teacher and on the students, and that when the form changes, roles too are changed.

Jokes and the comic

Humour is a slippery subject, and its nature and mechanisms are notoriously difficult to analyze. In part this is because much humour derives from contributions and paradoxes inherent in the structure of language: humour thrives on misunderstanding and inappropriate usage. Trying to be serious about humour is an area particularly fraught with dangers; a metaphorical banana skin; for the attempt to be serious quickly becomes a joke in itself and about itself. Humour is not a static quality that can be built in to an utterance or a statement to a calculated degree, but is more like a free and fast-flowing source of energy the movement of which is difficult to predict and control.

Of all the meanings language and speech may be used to convey, humour is among the most fragile and subtle. When his jokes failed to get a response from his audience, one public speaker was known to repeat them, slowly and carefully, until the audience began to laugh. After some twenty minutes the audience was usually laughing to the point of collapse, even though the script was unchanged from their first cool response. The nature of humour is complex, in part because it resides, not just in the logic of what is said but in the performance of the teller, in the relationship between the teller and the audience and in the immediate context and atmosphere of the instance.

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[1]This is an abbreviated form of the hypothesis known in classroom research as 'Flanders' Law of Two-Thirds' (Flanders, 1970).

I have used the term 'humour' to describe a wide set of meanings, and the term 'joke' in a narrower sense. 'Jokes' are perhaps best defined as humour that survives reduction to a script. You can buy books of jokes, or put them into Christmas crackers, but humour in the wider sense is often difficult to record. Of course only some of the humour of the joke survives in the script, much of it has to be recreated in the telling, but a glance at professional humourists, on television for example, shows clearly that some forms of humour depend on scripted jokes, but that others depend on situations and on performances. This is particularly true of what is sometimes called 'situation comedy', where there may be very few jokes in the punch-line sense. The source of humour lies rather in the ambiguities and tensions that arise within the situation as the narrative develops. The term 'joke' seems inappropriate for much of this humour, and the description 'comic' more accurate. Humour of the comic kind arises from the creation of comic relationships in the unfolding of the story, it is a structural feature of particular sequences and sets of human actions in the context of a narrative. As is well established in theatre, comedy and tragedy are closely interrelated: the tragic stalks the comic as its mirror image.

The distinction between 'jokes' and the 'comic' is crucial to the analysis I have outlined as we follow it beyond theatre into everyday life. Joking is essentially a product of formal situations, for it demands the existence of an audience. There is in Garfinkel's term an 'indexicality (Garfinkel 1967)' between joking and certain forms of human communication. The telling of a joke both marks and reinforces certain kinds of relationships between people, and certain kinds of joking are characteristic of particular forms of relationships. There is, for example, a humour of the workplace, of which the following account provides a good example:

> The miner's 'language' however strange it appears to the outsider is an inevitable part of him. The language of the miner regardless of what dialects it embraces, is an intricate and inseparable part of his whole culture. It is directly related to his community, his work and the way he handles it, his trade union struggle and movements, his songs and stories. It is one political whole, each facet dovetails into the other.
>
> The mine necessitates a different attitude of mind, a different temperament to that on the surface; necessarily it gives rise to the culture and language which are peculiar to that environment. A man who could not 'switch off' his surface self and change his nature when he went underground would not last long in the mine. The pit is a barbaric world, a world of filthy smells and stagnant air, of gases ever lurking in the roofs and floors, of small cramped places, of falling rocks, of gushing water and stranded pools, of thick clouds of dust and stifling heat. Sharp objects dart downwards from the roof to tear at the head and back; the floor buckles and rolls and the feet are never sure. Into such a world, shaking with weight and deafened by machinery, men with a solitary beam of light to aid

them, fight out an existence. A man must become hardened to this hellish cavern; he is in a permanent state of aggression and the temper stimulates hard work; cruel things happen to men underground, and as in war, men must steel their minds against the thought of them. All day long the miners are being prodded and struck by supports and rock; the blood is at boiling-point; if it wasn't for the jokes which come non-stop we would all be fighting in a few minutes.

Certain of the miners' jokes may appear hard or cruel, but without the ability to make light of accidents nobody could keep sane underground. The obvious intention of jokes such as these is to laugh off the danger and try and make light of things which would stop other folks in their tracks. A lot of mining humour is good-natured verbal combat with as much cut and thrust as could be found anywhere in court room or on stage. In Yorkshire this is called 'piliking'. Yorkshire miners love to 'pilik' or take the mickey out of each other; the sooner a man loses his temper the better; the crowd enjoys it and heaps on the ridicule. 'Piliking' goes on all day - a continuous stream of more or less violent banter - and keeps the men's spirits high and their minds alert.

And so it goes on, non-stop, all day, the things one laughs about underground would seem silly to write about in the cold light of day. The way the 'patter' is delivered matters more than the words; the men revel in their dialects and pump the words out with the force of a tommy gun; the expressions men pull when telling a yarn, the twitch and movements of their hands, can reduce the audience to an hysterical heap and keep them smiling through the dust and grime.

(Douglas 1973, p. 1)

Jokes are used in the mine as a means of achieveing an organic solidarity on which miners are dependent for their safety. Jokes may also used to create social ease between those who are divided by power or status, in situations where roles are in close contact, but where persons wish to retain privacy. So while the description given of miners' humour might be extended to surgical teams and to combat troops, other styles of joking may be characteristic of those settings in which we find salesmen, police officers, classrooms and committees.

Rose Coser, studying the social patterning of humour during staff meetings in a mental hospital found that 'those who were of higher status positions more frequently took the initiative to use humour; more significant still, the target of a witticism, if he was present, was never in a higher authority position than the initiator' (Coser 1960, pp. 81-86). Clearly this would seem to have some relevance to the classroom, especially that organized on formal lines. Coser goes on to suggest that humour in the meetings she studied is predicated on a significant structural ambiguity, for while, 'humour serves to reduce the social distance between persons occupying different position in the social structure . . . [thereby] . . . bridging the fissures that tend to be a consequence of the status system, and of division of labour', it also serves other functions; humour,

especially wit of the kind that appears to be most prevalent in the meetings Coser observed, is often of an aggressive nature. Arguing from a functionalist position, she sees this as fundamentally threatening to the stability of institutions, and argues that this explains the tendency for humour to follow the distribution of power.

The very nature of the comic is different, for its meanings are not freely available to those who happen to be present in the situation. The humour of the comic divides those who know from those who do not, and in this sense it is more fundamentally subversive than the kind of witticism that Coser sees as normally directed at those in lower status positions. Even comic presentations in the mass media (The Goons, Monty Python, The Young Ones) depend initially on some people being excluded, even offended, for the audience always has to be initiated into the genre.

Where the joke offers ease between strangers, the comic offers identity through the sharing of culture. It is in the nature of the comic that its humour is excluded from those who do not share a particular vocabulary of actions, events and memories. Jokes have a start and an end and their telling can be located as a particular, often ceremonial event in the course of an interaction; but the comic is seamless and irrepressible, having no respect for boundary or for social convention. Joke telling may be the social currency between those of differing social status but the comic thrives between equals in the face of authority. As a general rule teachers tell jokes to the class, but students mobilise the comic elements of their situation amongst themselves.

Humour and power

Observation of social situations where one person has formal or effective power over others (teacher-student, boss-worker, officer-private, white-black, police officer-suspect, parent-child) reveals that humour frequently serves the delicate function of signifying the boundaries that mark limits of control. The humour thus hinges on rapid calculations that need to be made about the extent of control in the situation at particular moments of time. At one end of a continuum, when the distribution of power is strongly asymmetric, then the amount of humour up the power gradient is likely to be minimally expressed. Coser noted how few witticisms were of this kind, but there are forms of humour that are carried extra-verbally or non-verbally through slight exaggerations of posture, gesture, proximity of speaker to hearer, intonation or by highly extended metaphors. Those who experience long-term immersion in relatively powerless roles often develop subcultures in which the minimal expression of humour is an important element. Oppression seems a fertile ground for humour.

Antonin Obrdlik, a Czech sociologist, caught up in the Nazi invasion of his country in the late thirties attempted to chart the rise of what he called 'gallows humour', a form of

humour that seemed to flourish in the initial phase of oppression. Summarizing his account he wrote:

> Humour in general, and gallows humour more specifically, is a social phenomenon the importance of which, under certain circumstances, may be tremendous. It originates in the process of social interaction and bears marks of the particular group by which it was and created and accepted. Its social character is revealed by the fact that it changes its content - and sometimes also the form in which it is presented - in accordance with the character of the group and the social events to which it reacts. The specificity of the gallows-type lies in that it is always intentional in the very real sense of the word. Not humour-for-humour, but humour with a definite purpose - that is to ridicule with irony, invectives, and sarcasm in.order to become a means of effective social control.
>
> (Obrdlik 1942, pp. 715-716)

The humour that emerges in asymmetric relationships derives from the recognition that the control of the powerful over the powerless is never total, and in the gap that remains humour may thrive. Jules Henry's (1960) notion of the 'polyphasic' nature of human communication is significant here for, he argues, people always communicate more than they intend. Messages are never unidimensional or unambiguous, and within even the most ritualized action lies the potential for communicating an enormous range of possible meanings. Consider, for example, Ray Birdwhistell's description of a military salute:

> During World War II, I became at first bemused, and later intrigued, by the repertoire of meanings which could be drawn upon by an experienced United States Army private and transmitted in accompaniment to a hand salute. The salute, a conventionalized movement of the right hand to the vicinity of the anterior portion of the cap or hat, could, without occasioning a court martial, be performed in a manner which could satisfy, please or enrage the most demanding officer. By shifts in stance, facial expression, the velocity or duration of the movement of salutation, and even in the selection of inappropriate contexts for the act, the soldier could dignify, ridicule, demand, seduce, insult, or promote the recipient of the salute. By often almost imperceptible variations in the performance of the act, he could comment upon the bravery or cowardice of his enemy or ally, could signal his attitude toward army life or give a brief history of the virtuosity of the lady from whom he had recently arisen. I once watched a sergeant give a 3-second brilliant criticism of English cooking in an elaborate inverted salute to a beef-and-kidney pie.
>
> (Birdwhistell 1971, pp. 79-80)

Consider also the humour of the rural American black observed by John Dollard, a white pschologist and psychoanlayst studying race relations in a town in the American South during the nineteen thirties:

> Everyone has noticed at one time or another an aggressive element in jokes; for example, jokes about dictators inevitably arise once

other forms of aggression are suppressed. The joke, of course, conceals its aggressive intent behind the facade of the little story, and often times it takes a bit of analysis to make it clear. In sarcasm, on the contrary, the aggressive element is plain. Negroes do not omit jokes from their arsenal of reprisal against white people. White informants frequently comment on the unaccountable manner in which Negroes laugh. Very often when whites suddenly come upon Negroes laughing and the Negro refuses to explain, it is not because he cannot give a reason or that he is a mere idiot laughing at nothing, but rather that the joke is on the white man and an explanation would be tactless.

There is a story of a white man who overheard a Negro in the field singing something that sounded a first like a mumble. He would sing for a bit and laugh to himself. Finally the white man made out the words of the song: 'Lazy white man sits on the fence, don't do nothing all day long.' The Negro had his little joke, and also his little revenge.

Negro humour often has a delicate suppressed quality, perhaps because of the danger of allowing the aggressive component to come through clearly. A Negro informant told the following story:

Negro named George went into a white store to buy a hat. The clerk said, 'Well, Bill, what will you have?' The Negro guessed he would have nothing. At the next store, 'Well, son, what will you have?' He said nothing. And so on, through a list of names such as 'uncle', 'Mose', etc. Finally he came to a store where the clerk said, 'Well, George, what will you have?' 'A hat', he answered, and bought it.

> This is also an example of the stubborn self-respect that this Negro could 'fix it with himself' to accept being called his first name only if the white man got it right. This story deserves a bit of thinking over; the least that can be said about it is that the fragile joke is on the white man. Negro humour is often so delicate that it is hard to locate, and one comes off with the battled general feeling that the whites have been lampooned without knowing quite how.
>
> (Dollard 1939, p. 309)

These examples all have relevance to student humour, which is not something looked at closely in the previous chapter. The implication is that I need to add another layer to the analysis proposed at the beginning of this chapter, a layer which distinguishes between inside and outside the classroom, for both teachers and students. It is important to note, however, that the terms 'inside' and 'outside' are metaphorical rather than geographic, for though it is hidden beneath the surface of visible interaction, such humour often crosses the threshold of the classroom door.

The diagram set out at the beginning of this chapter may now be elaborated as follows:'

Situation	*Situational Structure*	*Interaction*	*Role*	*Form of Humour*
Inside Classroom	Formal	P-T	Joker	Jokes
		T-P	Joker	Jokes
		P-P	Joking Relationships	Comic
	Informal	T-P	Joking Relationship	Comic
		P-P	Joking Relationship	Comic
	Formal (eg staff meeting	T-T	Joking Relationship	Comic
		Senior -Junior T	Joker	Jokes
		Junior - Senior T	Joker	Jokes
Outside Classroom *(TEACHER)*	Informal (eg staffroom)	T-T	Joking Relationship	Comic
Outside Classroom *(PUPIL)*	Informal	P-P	Joking Relationship	Comic

Diagram 2: Situations, situational structures, interaction, role and form of humour

When power is asymmetric but negotiated

Reference to situations of an oppressive nature is, to a degree, misleading. Typically in the classroom, though power is asymmetrically divided between teacher and students, the division is not so extreme as to leave no room for negotiation. Indeed a good deal of time may be taken up in some classes negotiating and re-establishing the boundaries and limits of control. As one teacher in the science department of a hectic inner city comprehensive put it:

> Control? I feel I'm like the Sheriff in a Western. Yes, I have control over the classes I teach. There is never a riot or even the threat of one. It's not that, that worries me. It's the continuous sense of tension. The control you have as a teacher has to be precarious because there's only me and twenty or more of them. Like the Sheriff, I never know when I'm going to get ambushed in the street. I have nightmares about it sometimes.

A good deal of the teacher's control derives from what this teacher calls 'bluff', and what sociologists might describe as the ability of a teacher to establish a definition of the situation in the minds of students. It derives from the teacher's ability to establish norms and conventions of behaviour and action. Humour may therefore frequently be thought of as a threat to a fragile and carefully protected and negotiated position, for humour may threaten to corrode the ignorance that forms the basis of *status quo*.

Like Rose Coser, Frank Musgrove is characteristically quick to see the connections between humour and power as marking a potential for conflict:

> Humour and sex may be equally dangerous to authority. Either may deflect the most determined wielder of power from his course. Ruthlessly dedicated organizations like armies and monasteries have tended to be single sex and solemn. The experienced schoolteacher recognizes the potential threat of humour and sex and suppresses manifestations of both. He knows that either leads quickly to the taking of liberties.
>
> (Musgrove 1971, p. 46)

But as is often the case in discussion of the role and functions of humour, this is only half the story. The other half is that humour may act as a point of access to a relationship between teacher and class, a theme that I will return to in chapter six. Consider, for the moment, this extract from an interview with a young science teacher:

Question: Can you think of an incident in class which made you come out feeling really good and that you had established something?

Answer: Yes, first year of teaching, which was four years ago, at a comprehensive of 1500. I had a very difficult third-year group and I'd spent about six weeks getting absolutely nowhere managing just about to contain them in a small terrapin building miles from the rest of the school. We were doing chemistry and I had a bottle of red lead absolutely full and I stood at the front and banged again, absolutely no response so I banged slightly harder and the bottom of the bottle fell out. Red lead is a bright orange powder which covered me from head to foot. I was wearing cream at the time. There was just me and a cloud of red lead: it was the first time I got absolute silence. All the kids reacted beautifully, they howled with laughter and then all rushed to the front and tried to brush me down and just brushed the stuff in. I then fell off the rostrum because I was laughing so much and after that I had noproblems with the kids at all because they were impressed that I could laugh at myself. I think that was probably the most exhilarating because there was complete spontaneity from the whole class. They were little buggers even so afterwards but at least we had established some

> kind of communication and it's something they've always remembered. I can meet them down the street and they will say 'Remember that day you disappeared in a cloud of red lead?

It is perhaps because humour has this two-edged quality that most teachers attempt to draw tight boundaries around the occasions when humour is permissible. Some will allow humour outside the classroom, but not inside. Others, like this primary school teacher confine humour to breaks in the lesson:

> As a teacher, I'm really a song-and-dance man. In the way I teach I always try to ring the changes. The way I look at it, you can't work them hard all day, nine-thirty to three-thirty. So I give them a test. Then I'll clown around for a while; make a fool of myself to show them I don't think work's the only thing in life. After that they can do English or write an essay, that kind of thing. Then I'll take them into the gym. All the time I try to keep the pace going. You know, on-with-the-next-Act. As a junior school teacher you're stuck with them all day, and them with you. It's only fair on both of you to create as much variety as you can ....

In this class it was clear that humour played an important functional part. It was a class with a strong competitive edge, but high morale. The prevalence of humour disguised a brittle social ethos which stressed high individual achievement (the school was in an area where the 11 plus exam had only recently been phased out). Humour acted as a safety valve, and as a ceremonial means for reasserting the corporateness of the class, and its shared experience in the face of powerful centrifugal tendencies.

The combination of strong teacher control and a stress on individual student achievement often leads to the establishment of the student role of 'court jester' (to borrow Louis Smith's term). Smith describes the part played by Sam, court jester in Mr. Geoffrey's 8th grade class:

> Within a month, Sam had developed a special role of court jester. He shuffled about the classroom in a Jackie Gleason style. Physically he was heavy set and wore his hair uncut, and his beltless bluejeans hung low on his hips. On occasion, he gamboled tardily into class with a smile and big 'Hi, Mr. Geoffrey.' Once, after loudly volunteering an answer to a question, he responded to 'Raise your hand, Sam' with both arms waving vigorously. In a tense situation he had a ready quip; he freely entered and exited in a banter of tete-a-tete relationship with Mr. Geoffrey. As an illustration we present an episode from the afternoon of September 18. Geoffrey has just been involved in a skirmish with Pete and Allison. The activity shifts from spelling, where Sam had begun being playful, to history. 2:45 - Geoffrey starts on history. He has Sam find Jerusalem, the exact point where the lesson ended before. Sam, with a flourish, finds it (several had helped him before lunch). Geoffrey, in his perennial one-up game with Sam, then draws down a map of the world (in contrast to the previous map of Europe and

the Mediterranean) and re-asks 'Where is Jerusalem?' Sam counters, with a twinkle, 'Can I peek?' (on the original map underneath). Geoffrey, solemnly and with a twinkle in his eye, says 'Yes'. Sam picks up a corner of the map and peeks. After a moment he finds and asks for corroboration, 'Is it right?' Geoffrey indicates 'Yes'.

Here was a boy who behaved very differently from most of the other children. The role in this instance was quite functional, for it brought fun and lightness into the class and provided Geoffrey with a challenge and an occasion for his own quick humour. But in many instances such a role can be detrimental to group purposes. Three weeks after the beginning of school we were puzzled about Sam's evolution. When we went back and carefully analyzed the notes, we were surprised to find what had happened.

An important fact is that Sam is a pupil who failed seventh grade last year with Mr. Geoffrey. He did little or no work. On the first day this year Sam had been teased sympathetically about possible tardiness and being at Rhody's Confectionery before school. Next, he had been given book number 13 and was involved in teasing about superstitions. Thirdly, he was called on to help Molly spell 'chalk'. Fourth, he volunteered to help in the supply room and was teased with the others about running off to play baseball. And fifth, he was pinpointed humorously regarding the fire drill. He had been extended five invitations, far more than any others (only Sandy and Bill were singled out with any frequency and they alternately took special roles). Day by day such interaction accumulated into a role and a related belief system.

The second day contained several more instances of Mr. Geoffrey's public attention to Sam. One of these seemed particularly significant; it occurred during the spelling lesson as the papers were being corrected. Each pupil was entitled to one chance to respond. The teacher had made this clear with references such as, 'You've had one' to both Allison and Kent. Mr. Geoffrey gave to Sam, the word 'tardy' and received the retort, 'I've had one.' He, Mr. Geoffrey, then commented, 'I'm giving you this one special.'

Sam also has a degree of skill in repartee. Few of the pupils could respond with the 'wise humour' appropriate to the context. In addition, he responded well to termination cues from Mr. Geoffrey. Banter contains these fundamental attributes.

We should comment further about the teacher's role in this instance. We had not realized, until we checked the names of the pupils who had been given opportunities to answer and compared them with the names of the children called on after Sam's second turn, that the next four pupils called upon had also given one answer before. In the space of a few minutes, Sam's role had been extended, and the teacher had built another subtle aspect of the pupil belief system regarding his own role - he was fair and equitable. Additional insight is provided from comments made by Mr. Geoffrey:

> *Teaching at Washington School can have a deadening effect on a normal, live, somewhat eager individual. To work day after day with pupils who aspirations and abilities are so typical of the culturally disadvantaged child - aspirations and abilities that need*

no description in these comments - is to court frustration and defeatism. Even what appeared in the beginning to be sensational after a while becomes commonplace.

The teacher in question suffered as much as any other in the environment. As a relief, he sought some humour and life in the children with whom he worked. Sometimes this could be found - as it was in Sam, Sandy, even Elma. Not to capitalize on this would have been a waste of natural resources.

Sam and a few others made it possible to inject joking and bantering into the classroom. It made it possible to smile. It made possible teaching in a personal and, I would hope, kind way. The teacher could treat some pupils as individuals (non-educational sense) rather than as a mob of dirty, sullen children. Some pupils, such as Sam, responded. One of the most discouraging aspects of teaching in a slum school is the lack of response from pupils. The teacher works, and at the end of the day leaves tired and irritable. This feeling comes from the continual effort to get these pupils to respond - in any acceptable way. To have them respond in humour, within bounds, is a most acceptable way. At least they are alive.

I do not deny that the consequences may be subject to question, I really don't think the teacher thought much of the consequences. I believe he thought more of finding life in a body than in what way the body, once awakened, would behave.

This, of course, leads to the question of teacher personality. When faced with frustration and failure other teachers may follow different courses to get through the days.

(Smith and Geoffrey 1968, pp. 54-58)

In Geoffrey's comments emerge the image of a teacher for whom classroom humour is significant because it brings humanity into schooling. As Philip Jackson has pointed out (also in the context of the American Elementary School), teachers do have a dual allegiance, as he puts it, 'to the preservation of both the institution and the individuals who inhabit it' (Jackson 1968, p. 144). Looked at rationally, schools make pervasive and extensive demands on the children in their care, but they also *care*. Humour may be one means for both softening the demands of an abrasive institution, and offering a degree of escape from it.

Joking relationships

In the previous chapter, I attempted to distinguish between 'jokes' which are defined as being context-free; and 'joking relationships' in which the relationship between the speaker and hearer is an integral part of the joke. The 'strawberries' joke, while its meaning lay buried in the history of the class memories, is nevertheless a context-free joke, whereas the relationship between Colin and Karen depend for its humour on knowing the people concerned. Arriving at Smith's account of the court jester is to arrive at the boundary between the two, for though the court jester role, as Smith and Geoffrey describe it, is a product of the formal classroom, it is also a role that fits the

definition of the joking relationship[2] . The distinction that has to be reiterated is that one considers the nature of the audience. Smith and Geoffrey's account of the court jester is of a role that is played to a class audience, whereas the roles played by Karen and Benny described in the previous chapter are more private, more personal, aspects of personal identity rather than of social identity, but this is a theme that will recur in the next chapter.

Connecting hypotheses

This chapter has attempted an analysis of classroom humour drawing selectively on a range of sources in psychology, sociology, anthropology and linguistics. The fact that the field of humour lacks a coherent research literature appears to reflect its marginal place in the social sciences rather than in its significance in everyday life, whether in the classroom or elsewhere.

As a way of summarising the ideas that have been developed in this chapter I will summarise them as a set of working hypotheses which will be carried over into the next chapter. Chapter Five returns to the intersection of curriculum innovation and classroom research and to questions about the implementation of curriculum reforms in complex social world of the school.

Working hypotheses

1. Classroom exhibit different forms of humour, the forms indicating differences in situational structure. Formal situations generate jokes: informal situations engender comedy.

2. This distinction involves different forms of teacher-student relationship. The formal classroom situation creates roles as jokers. The informal situation tends to create joking relationships between teacher and student.

3. Joking relationships between students thrive in predominantly formal situation, but tend to be expressed primarily outside the classroom and are often inaccessible to teachers.

4. Joking relationships between teachers may well thrive in schools where formal classrooms predominate, they are mainly expressed outside the classroom and are inaccessible to students.

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[2]The term 'joking relationship' is borrowed from social anthropology (for the origins of which see Radcliffe-Brown, 1953). In kinship systems joking relationships occur where there are contradictions in role relationships and identities. An example, which derives from some African societies but which may translate to many Western societies, is that of the relationship between mother-in-law and son-in-law.

5. Jokes between teachers and students frequently function to negotiate the framing of educational knowledge (in Bernstein's sense). Teacher's jokes are often bids for social control; student jokes (to the teacher), are frequently challenges to that control.

6. Jokes are situations sensitive and function to negotiate the boundary between personal identity and social identity, often celebrating the primacy of social identity. Thus they may ease the awkward articulation of roles, or alternatively may be seen as invasions of privacy or misreadings of the nature of situations. Jokes may make more of the person available for control and so increase vulnerability, or may decrease the threat of the institution by softening the abrasiveness of institutional demands.

7. The comic, expressed within joking relationships, is sensitive to personal identity, celebrating the primacy of the person over the demands of the institution.

8. Jokes, especially witticisms, are symptomatic of asymmetry in the distribution of power within relationships.

9. Comedy is the humour of equals. Though the fiction of equality may become the source of humour.

10. Oppression creates shared meanings amongst the oppressed, so providing the source of comic invention.

11. The main source of change in the humour of the oppressed is the leakage of meaning to the oppressor. A common counter-response is the inversion of meanings and values.

Chapter Five
STATIONS

Station:

A point at which one stands to take a view.

A person's position in the world; a state of life as determined by outward circumstances or conditions.

Position in the social scale, as higher or lower.

A stopping place on a journey; a place of temporary abode in a course of immigration.

A place where men are stationed and apparatus set up for some particular kind of industrial work, scientific research or the like.

Each number of holy places visited by pilgrims in succession . . .

To place or pose (a sentinel).

In botany, to have a certain position of growth.

A visit of a Roman Catholic priest and his curate to the house of a parishioner on a week day to give the opportunity for confession.

An act of pageant or mystery play.

The stationary point, crisis or height, or a disease.

In surveying - each of the selected points at which observations are taken.

In biology - the kind of place in which an animal or plant is fitted to live, the nature or essential characteristics of its habitat

The location to which an official is appointed for the exercise of his functions.

A place where railway trains regularly stop for taking and setting down passengers . .

The Oxford Dictionary

Introduction

In this chapter I will continue to develop the theme of the significance of humour as an indicator of pedagogic variations, but the level and style of the argument shifts. Chapter three treated the classroom as a closed system, concentrating attention on the verbal

interaction between teacher and students in the context of class lessons. This approach to the study of teaching, as argued in chapter two, is well-established in the research literature but there are disadvantages in not looking outside the classroom door.

Classroom research which builds on fragments of transcript extracted from teacher-student interaction relies heavily on the shared experience (of writer and readers) of classroom life. As such it is an approach that implicitly accepts a view of the classroom, and classroom teaching as a fixed and stable element in the educational process. I believe this to be an assumption that increasingly needs to be given a critical edge.

This chapter is concerned with the school as an organisation, with the role of the school in curriculum reform, and examines some of the ways in which schools contain classroom teaching within an organisational frame. Although there is a shift in emphasis from the classroom to the school as a setting for curriculum action, the point of focus is still on the role of the teacher and, unlike many organisational studies of schools, the classroom remains a key element in the analysis.

Where the two previous chapters were firmly rooted in the tradition of symbolic interactionist research, drawing on relatively long-term periods of participant observation to develop grounded theory, this chapter reflects a shift in methodological orientation. It was specifically influenced by Stake's notion of 'portrayal', an idea he outlined in a short but significant paper presented to the *American Educational Research Association* annual conference in Chicago in 1972

Stake subtitled his paper 'Program portrayal vs analysis'. The idea, implicit in the title of the paper, of setting 'portrayal' and 'analysis' apart in binary opposition to one another provides a challenge which forms a strong theme in this thesis. The approach and methodology I have been using in the two previous chapters, which derives from sociology, implicitly assumes that description *is* analysis, and that to describe is, therefore, essentially part of the act of theorising.

Putting observations into words, and words into text, means drawing on an interpretive process realised within the frame of a set of conventions. In this sense description is several stages removed from observation and at each stage there have been selections and ommissions. Even choosing one word rather than an other, or placing the same words in a different order, can be the key to different interpretations. The key words used in classroom research; 'authoritarian' and 'democratic', 'student- and teacher-centred', 'direct' and 'indirect' or 'formal' and 'informal' teaching; none can

claim to be value neutral. Even the word 'classroom' itself has become cemented into our usage and practice and is in need of deconstruction.

At this point the ambiguity touched on in the joke 'strawberries' can be seen as revealing a contradiction within the methodology which created its significance as research data. If there are indeterminacies in talk (indicated in particular by humour), then parallel ambiguities exist in the language of description. In the context of classroom research, 'strawberries' is not just a joke for the class, but a joke about itself, for it threatens to undermine the very language used to prise it from its context and to relocate it in an analytic text[1].

The move to descriptive research signalled by Stake, sometimes seen only as a reaction against measurement traditions in research, in fact created the ground in which to pursue a wide ranging set of questions new to educational research, though well rehearsed in the arts and humanities. The move to description raises questions about narrative, about the nature of subjectivity and about the relationship between the author and the text. These questions in turn open the door to experimentation in the methods of research and research reporting, an opportunity that is explored in this chapter and in greater detail in the four chapters that follow.

Finally, this chapter retains a concern with some of the questions raised by the curriculum reform movement. Questions in this case about decision-making, planning and evaluation in schools attempting to manage curriculum reform. 'Stations' was originally written as a report during the course of a project which attempted to address a number of questions about the implementation and adoption of curriculum reforms[2]

Points of departure

The location to which an official is appointed for the exercise of his functions

> Journal entry - *December 17th, 1973*
> I have been working on the project six months and I am finding it difficult to get to grips with the issues. I feel I should be studying

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1At one stage it appears also to have become something of an icon in teacher education courses. During the early '80's, while acting as an examiner for BEd programs, I was amazed to see how often the incident was quoted (and misquoted) in student essays, in a wide variety of contexts.

2Called 'SAFARI' ('Success and Failure and Recent Innovations') the project had a twin study, the Ford Teaching Project, which explored the notion of classroom action research in education. 'SAFARI' attempted to address some of the wider issues of school-based reform, then emerging as a response to centrally funded curriculum programs.

the details of schools and classrooms, observing curriculum projects in action. But somehow it is difficult to find a research design that connects detailed studies of the real world of schools and classrooms to the concerns outlined in the brief. The gap between the world of developers and the world of the school seems a difficult one to fill.

Part of the difficulty stems from the fact that the proposal is highly individualistic, written by Barry MacDonald out of his experiences in evaluating the Humanities Curriculum Project. Basically SAFARI is conceived as an evaluation exercise focusing of a number of completed curriculum development projects but building on Barry's evaluation of HCP.

I have no direct experience of working in curriculum development or in evaluation; my intuition is that on the educational scene as a whole such projects are marginally important. I feel that in any research we do we must be careful not to reify the very idea of the curriculum project, making it seem more important than it is. If we really want to know about the successes and failures of projects why not study schools which have used none of the projects and ask why? Why don't we look at schools that have really succeeded in innovating, had run ahead of the projects, and ask how?

Barry finds this difficult to accept, he sees evaluation as evaluation of a *program*, and see me pursuing a pure research line that threatens to become at best diffuse and at worst arid and academic.

> Our ways are beginning to diverge. Barry is increasingly getting involved in another project which employs him half-time. I am beginning to extract ideas from the research I feel comfortable with, and to set off in my own direction. We talk around the problems at length, mostly on trains and at railway stations.

A holy place visited by a pilgrim

As Barry and I talked around the problem and began to build on the ideas we shared (which were ideas about methods and techniques in what he called evaluation and I called research), I began to formulate a justification for studying Elm Wood School under the auspices of SAFARI

Later a research design emerged which brought the idea of school-case study into the research program. Helen Simons, who had extensive involvement in the program has written about this elsewhere (Simons 1988). The idea I had was elusive, a difficult one to put into operational terms.

> *December 17th*
> Travelling cross-country from Norwich and between stations. On my way to visit Elm Wood School, a school with a national reputation in educational circles. On the surface a visit to a friend, at the back of my mind the thought that I might pursue the research in a new direction and attempt to look at a school that has succeeded in innovating, but which feels it owes little to particular curriculum

development projects. My feeling is that if I could accomplish this, then the connections with the project brief would become clear. I find it difficult to make my case in the abstract but feel an example would make it for me. A sub-question is whether, in a two-day visit I can create an 'ethnography' of a school that might meet the growing need in evaluation circles for such studies.

In terms of curriculum theory, there are other questions. In previous weeks as I have listened to people talking about their experiences as members of curriculum development teams what struck me most forcibly was the excitement and exhilaration they felt. For many it was a culminating point in their professional careers where different views and interests came together in a genuinely creative manner. The more I listened to people recounting their experiences as team members, trial school teachers or project officers, I began making connections with other events that occurred concurrently. Events in Education like the tidal wave of books published by Penguin Education, the first appearance of Open University courses, the accounts that emerged from particular schools - Risinghill, Summerhill, . ., the Free School movement, changes in teacher education like microteaching and role play. The more I have thought about it the more I feel all those things seemed to fit into a common pattern. They seem to be part of the same fragment of culture: bits from the same jigsaw. The theme is one that connects cultural change and personal (and professional) motivation.

I keep thinking of an analogy of Levi-Strauss, that if you want to know the pattern of the jigsaw, perhaps you should look for the characteristics of the saw itself, what is the formula might describe the cam that produces the pattern? Is the underlying pattern a wave of cultural optimism, the sources of which lies far from its genesis?

Casting my thoughts wider: Is there a connection between the events I had located in Education and other events in the wider culture? I find myself thinking of the people I know who had been active in curriculum reform, particularly at school level, and asking myself how far their professional lives had been influenced by their life styles. It sounds absurd at first sight but I began to think perhaps there are connections between what had happened in Youth Culture (John Lennon and George Best) and what has happened in schools.

Two alternatives present themselves. One is that each of these events reflects different facets of widespread cultural change. The other is that the change is less real than imagined: Schools have only changed superficially in order to retain their power - they had conceded personal style (long hair, pop music, and football) but retained social control and kept their authority. It is possible both alternatives are partly true.

These were the ideas that I was thinking around on the long cold train journey across the east anglian fens.

Ron Fisher

A person's position in the world; a state of life as determined by outward circumstances or conditions

When you mention Ron, the thing everyone comments on is that Ron is a 'laugh'. In the way people tell you this it is clear that it is a two-edged quality, the students appear to like him ('If ever I was in any trouble he'd be the only teacher I could talk to.' 'He's the only teacher I don't feel a bit uneasy about calling him by his Christian name.'), but every so often the two-edged quality comes through - -'he *always* takes the piss out of you'.

Ron is a joker and he knows it and plays on it. To him joking is serious:

> I'm certainly amenable to jokes - accessible to jokes, and accessible to people thereby. I think that's the important thing. I think you need a point of access with people. That's what most people lack. They don't lack the capacity to *make* a relationship. They lack the capacity to get into it.

One of the stories Ron tells about himself is about a parents' evening when one of the Dads came up to him and said 'Our Jim always talks about you, and I can see why'. Then, almost as an aside, 'Here, have you heard the one about . . .'.

In one way the story is misleading for it isn't that Ron constantly tells jokes, like salesmen are reputed to do. What he does seem able to do is release the comic element in any situation.

It follows that Ron does not necessarily enter his classes to a burst of applause, and conduct his lessons through gales of laughter, (though I have come across one or two teachers who are able to do this). More often the humour reveals itself through the ridiculous, through underplayed status, or mock authority.

Ron is aware that a dominant theme that underlies his joking relationships with students is shared antipathy towards authority:

> It's something of the irreverence of it, basically you're not laughing at each other; you're getting together and laughing at someone else. That's why when you said it's not really what the teacher *does* (that makes it funny), I think there's an element of that in it. In other words it's like the kid and you getting together and you are laughing. Even if it's not particularly funny, it's you and them against the school. Against the institution, against something. Maybe it's you and them against other teachers or other kids, but

you've entered into a joking thing, and that in itself is sufficient . . .
it gives you a certain strength, a certain isolating intimacy.

Joking creates personal relationships between teacher and student, but just because the relationship is personal some students are excluded:

The more I think about it, I think that jokes are very exclusive. There's no doubt that they cut people out, but they also cut you in, they put you into something definite. They define the limits really. It's you and them against the rest. I think when you're into an irreverent joking situation, the attraction of it is its sheer irreverence to begin with.

From the evidence I have given so far it might seem that Ron's actions reveal an 'anti-teacher', someone who wants to escape from the authority implicit in the role. This point formed a central focus in one of our conversations, but before I got onto this I first established that Ron was aware of two classic uses of jokes by teachers who act more conventionally within their roles. One is the joke as a means of control:

. . .there is a joke as definitely a way of controlling the situation, by almost the kid being scared of the sort of joke you are going to make; because jokes can be very punchy. Kids can be very sensitive about things, and if you joke about them, obviously you can put them down, control them by that sort of joke, and if they are scared by that . . . . Whatever their weak point is, if you know it you can joke about it.

The other conventional use by teachers is the joke as a means of escape from embarrassing situations or confrontations:

I think that sometimes one makes jokes because you're in a tight situation . . . . Like this morning, I had an essay to mark and I said I'd lost it partly as a joke to relieve the pressure on myself.

Ron admits to using jokes in both these conventional ways but, far from selling out on his obligations as a teacher, he sees his joking as an indication of control in the classroom:

My main reflection on reading through [the transcript of an interview] is what an utter ego-maniac I seem. The only redeeming feature is that I do seem half aware of it. I think it might link up with the fact that only teachers who place jokes at the centre of their studies at Elm Wood School are all in a similar bag-big egos (big heads?), self-confident, and so often dominant in many ways. I do think you need a strong sense of being in control, and of things going well for you before you would be willing to give jokes a central place in your teaching.

This is a point Ron makes more clearly when he describes how he starts off with a new class. One of the conventional wisdoms of teaching is that you should 'never smile before Christmas', or 'start tough and ease up later'. I see this as meaning that the teacher should establish the formal, institutionally prescribed and required relationships, before trying to enter a personal relationship with students. 'Never smile before Christmas' clearly implies that jokes are part of the process of letting yourself become a person in the eyes of the students.

> I never start with jokes actually with any group, because I think that jokes are quite an intimate thing. I don't start with jokes. I begin to *see* jokes quite early on, but I always start dead-pan, always. First lesson is dead-pan, and always I would say there are thresholds I would cross before jokes come in. Like I will never make a joke before the threshold . . . it's the classic authoritarian stance in a way. I want the class to know that I can make things stick before I joke.

Ron's use of jokes as a means of initiating an encounter seems, in part, to be the other facet of the 'control' coin. For just as jokes can give access to areas of other people in a personally destructive sense, extending an institutional relationship beyond its formal bounds, they can also be used to redraw boundaries between one set if relationships and another..

Jokes only have potential in this sense; they are not keys that of themselves unlock relationships. Several students have described to me cases of teachers who seemed informal, because they were always joking, but who in fact were using jokes to keep them within a tightly prescribed status. In this way the teachers were able to give the surface appearance of 'intimacy' without taking any of the risks of more fundamental change.

Ron echoes the point:

> I mean the real trouble with . . . was not that he jokes, but that he was weak and he couldn't make things stick, and he was using jokes as a way out of that. Now that's a disastrous and pitiful way out, if the joke is a retreat, as it is, the joke is often a retreat . . . .

Ron's self-deprecatory joking might also be a form of retreat, but this is an interpretation he strongly rejects.

> I am always aware that I am the teacher . . . and that my fundamental job there is to be a teacher. I think it would be patently

> false to say I was a mate, and that's all, because I'm not. I'm a mate, I'll joke, but in the end I'm trying to get them to do something, and they know that. There are mates that try to get you to do other things, but I am the mate that is there to be a teacher, and that in the end does impose boundaries, but they just don't intrude in relationships.

Ron's expressed strong commitment to teaching and his simultaneous rejection of much that passes for conventional teacher behaviour seems to pose a paradox, but it is not experienced as a paradox by Ron, he resolves it this way:

> I would say I would be concerned for them to know, for all sorts of reasons at the beginning, that I am the teacher, and I am not pissing around in that role, and that role does matter to me, and it matters to them, and I do take it seriously. But as a person I am willing to accept almost anything, given that you do accept that I am a teacher. Ultimately what I am trying to do with you, somebody I like, is to teach you. In other words we are not going to be going nowhere every day. We are going to be you and me, but we are going to try and get somewhere. I don't see that as a contradiction at all if it doesn't intrude into the relationship.

Often teachers do feel contradictions between themselves as teachers and themselves as persons. Hence the teacher who is friendly in the playground or in the corridor but who freezes in the classroom, or the teacher who allows a relaxed atmosphere in some parts of the lesson but who knows when to be serious. I detect nothing of this in Ron and nor do those who know him better than I do. He seems the same in almost any situation.

It would be doing Ron an injustice to present him as a clown who acted on his own impulse and who had no rationale for acting in the way he did. In justifying his joking relationship with the 5th year leavers group , Ron related his joking to the values of working-class adolescent boys. Here his own history as a working-class adolescent is no doubt important:

> There's a high fantasy level, a high joke input; far more jokes among working-class kids than there are among others, so jokes are really important to them. It's very much part of the life style. For many working-class kids, to be in a learning situation is somehow suspicious - if you are seen to be learning you are in a rather suspicious, tense relationship with your life style. Now if this is true, that the learning situation is an alienating, tense thing for him, the each time he finds himself in this alienating situation he will want to back out, won't he? It seems to me that once he can see himself as a kid at a desk *learning* - -once he can define that relationship, he's buggered. That is an alienating relationship that he does not want to be part of. He's too conscious that if your mates find you learning, that's hell. So you've got to cut it out. The central stage

has got to be all the while that you're joking, that it's still a bit of a joke what you're doing.

Implementing new curricula

It might seem I have drifted a good way from our point of departure, which was a concern for the implementation of new curricula in schools. The aim in portraying Ron's teaching is to present a background to an important idea that is his rather than mine. Ron teaches in a highly progressive school and within the school is certainly one of the least conventional teachers. Yet he rejects most of what normally passes as innovation in education.

How do you see the host of Schools Council projects?

It's just a huge charade, an absolutely meaningless charade.

If anywhere has caught the impact of the blast I would have thought Elm Wood School had?

Yes, I'm right at the centre of this World history project but it's absolutely irrelevance, total charade. The very fact that most projects and that the Schools Council defines curriculum as something 'developed by teachers' implies the whole thing is just a charade. It must be if that is your starting point . . . . I've not seen anybody anywhere, even in the most liberal documents, who has any conception of the curriculum at all except as a total teacher monopoly. Nowhere is the possibility of any other kind of curriculum even considered.

The whole Schools Council philosophy is that teachers evolve the curriculum, work it out beforehand and then take it from there and impose it on them, or at least present it in front of them.

Ron's conception of the curriculum is one in which content is inextricably linked with teaching relationships. He sees 'the curriculum' as something which can only be talked about as an ideal concept, the reality is what happens between teacher and student. He offers a definition:

The curriculum is in retrospect what has happened between you. That's all the curriculum is ever. It's just a retrospective evaluation of what has happened between you and a student. It's no good just preparing something in a vacuum and throwing it to the wolves. You've got to do it there, on the spot or you don't do it at all. That's where it matters, your curriculum. In that room, in front of those kids. That's where curriculum stands, in the interchange between you, or falls . . .

Not surprisingly Ron rejects materials production approaches to curriculum development which he sees as designed to be 'teacher proof' and, therefore, fundamentally flawed.

> I suppose you could still argue that Schools Council projects have succeeded in replacing one curriculum by another. That seems to me to be irrelevant if you are not in any sense changing any of the relationships on which the curriculum is based. I'm sure you can change one kind of package for another but all the packages are the same if they don't involve the kids.
>
> *So the crucial thing is the relationship between teacher and students?*
>
> Of course it is. If the kid is not involved in the negotiation at all how the hell can you expect to devise anything that is of interest to him? You end up going into the classroom with your little bundle that it's been predicted they'll like and they just crap on it like they always crap on it because it's something you're presenting as a *fait accompli*. Once again you turn around and say, 'What can I do next? Let's try Latin'. It's nonsensical.

I mentioned before that Ron rarely engages in whole-class teaching. Most of the time his students work on projects. The atmosphere in Ron's room is distinctive, there is a lack of busyness, little hurrying on of students, little pressure to write rather than talk. Ron sees joking relationships as quite important in building up this atmosphere:

> It's the general atmosphere that is notable here. I think this would come out if you came for a day and compared the atmosphere in our team, and the one in the other team. In the first team jokes are a central fact of existence, perhaps the most manifest symptom of the relationships the teachers envisage. Here the kids seem open, happy, and dare I say it, industrious. They mostly seem to have things to do. In the other team there seems to be all the features of latent confrontation that you get in a more traditional classroom. Many kids are visibly bored, and there seems to be an air of hostility when the teacher approaches - all the time the teachers seem to be on their guard, watching their dignity, keeping their distance. Perhaps above all the use of, and more importantly accessibility to, jokes, signal to the kid that there is a person who is not going to impose the normal role demands that teachers make.

Not imposing the demands that teachers usually make is important to Ron because he feels that is what alienates most of school from the working-class adolescent. He describes school as he thinks it is seen by his students:

> Things that you take seriously are the fun things. That's where you put your fucking energy, that where the centre of gravity is. After school normally, when you go down to the boozer or you go and play football, or when it's break time. Your life is lived

exclusively for the time outside the classroom. The time inside the classroom is a penalty to be paid, just like working in a factory. And so you truant as much as you can when you are at school, because that's a few holidays before you end up in the factory. Obviously the things you do in school are a waste of time. You see generation after generation of people fail. When you go to school you fail, so you don't want to know about it, or any of the things you are supposed to do there. The only thing you want to know about are the things that don't seem related - so the things that are very important to you are the things like football, or Pop, and things outside the classroom.

In order to survive as a teacher in a school that places its emphases on student-direction and self-motivation he finds himself disguising learning by making it a joke:

> The other point is deferred gratification. The project you're doing has got to have a high laugh input, so every interval there has to be a laugh. And the only way you'll get commitment is by setting up as an irreverent, non-deferential situation as you can. It's a learning situation none the less, but it doesn't seem to the kid to be. It seems to him to be something which is a bit of a laugh, where you've got the teacher on his own, and he's sticking things in, but he's still a bit of a joke. You're having a laugh, it's a good time and maybe you're learning, but nobody's rumbled it so you're OK.

He extends the point by trying to describe himself as he likes to be seen by his students, and in doing so shows how he feels different to other teachers and indicates the significance of joking in his distinctive role:

> So if you suddenly see somebody over there who's not doing what he's supposed to be doing. He's a teacher, but he's got kids around him and they're laughing. In general it's not a classic learning situation. There's nothing self-conscious about it. Kids don't come earnestly for information or anything. Maybe therefore he becomes very important to you, because in this desert of school time, you waste less time. In other words it finally becomes positive to you, you can get into relationships which are not what you had in other classrooms.

Collecting thoughts before making a change of tack

I have pursued Ron's joking because it seems a distinctive feature of his teaching that marks him off from many other teachers I have observed in informal classes. Although this pursuit might seem trivial in relation to my research aspirations I have found myself returning to significant themes. One has been the indivisibility of curriculum and pedagogy when looking at actual classroom practice . Another theme has been the difficulty of making pedagogic change in comparison to the relative ease with which curriculum can be changed. A third theme has been necessity of changing teacher role quite significantly if self-motivating teaching methods are to be effectively used with

working– class students. Fourth is the complex constraints on curriculum reform that derive from the ways in which classrooms are themselves framed by the institutional structures of schooling.

A change of tack - Elm Wood School

The account I have given of Ron Fisher's teaching needs to be situated in an account of the school. I am not able to give a full account of the school but what follows is a diary of a visit to the school starting in midday one day and continuing to late the following morning. Again the focus is on Ron Fisher but the context of the case is wider.

A place where men are stationed . . . for some particular kind of work. . research or the like

Elm Wood is a secondary school with a national and international reputation as an innovating school. A trial school for a number of curriculum projects (Project Technology, General Studies, World History and various Maths and Science schemes), it has also been something of a mecca for educationists and researchers. It is the sort of school that did not merely become a project trial school, but which ran ahead of most projects, cannibalizing their ideas and materials and sometimes creating for the projects, new visions of what might be possible.

Although several of the staff have at one time or another worked on curriculum development project teams, there was (and is) a strong feeling in the school that the role of central development projects is limited by their lack of contact with the everyday problems of teaching and running a school. For the most part in its relations with project teams the school refused to be submissive, and projects (like the Humanities Curriculum Project) which made strong demands were passed by:

> We were too bloody arrogant to even try Stenhouse's project. I think we did buy one of the packs - yes, we got 'Education', but I don't think we ever really used it - at least not in the way it was intended to be used by the project team. Their view of the neutral chairman was still too much of a teacher for us I think.

In its early days (it was opened in 1970 as a new school), Elm Wood School had many of the social and cultural characteristics of a curriculum project of the same period. There was a climate, not just a mood, of optimism and excitement, teachers worked enormously hard without complaint. There was a feeling that the school had cut through orthodoxy and convention and was touching the pulse of the educational process - a feeling of confidence and success.

Inevitably the school made enemies. A vocal group of parents mounted a campaign against the school which caught the attention of the local press. At the height of the campaign there was a fire in the school's administration area. The cause was later identified as an electrical fault in a piece of office equipment, but the news of the fire was inevitably associated with the stories of vandalism which fed the protest group.

The campaign reached out from County Hall to the Ministry. The local MP pressed for an inquiry and, finally, the Secretary of State announced an inspection by government officials.

I visited the school just before Christmas 1973, a week following the HMI's visit, and tried to see it through Ron's eyes. What follows is an account of one afternoon, an evening and the following morning in my life and his.

Selected points at which observations are taken

I last visited the school in June 1973, just before the notorious fire, with Phil Robinson, a colleague in the University Education Department where I was teaching. It was his first visit to Elm Wood School and a year later I asked him to recall his first impressions:

I went to Elm Wood School rather like a child going into Disneyland for the first time. That's not meant to be a disparaging remark, but I had that sense of awe and wonderment that here was a thing called 'school' that had the label 'school' attached to it, and it had children performing in the sorts of roles that schools tend to push children into. Yet at the same time they weren't. They seemed to have more control, more say, more responsibility for themselves.

The impression that remains with me is one of space, openness, I suppose in a sense the space and openness are there not only in the physical building but also in the human relationships, I think the best way of trying to remember the day is to try and talk my way through it as it actually was.

I remember arriving, walking round the outside of that circular building and going into a corridor to get to the administration so Ron would know we had arrived. We sat in a waiting room which was dark, possibly windowless - I would even go so far as to say that the paint on the walls was traditional school yellow.

Ron arrived, it must have been about break and we went for coffee, I know I had a feeling of envy in that coffee place, envy because of the ease of the relationships that were between the staff and the kids.

It seemed to me that human being actually mattered, that status wasn't important, that who you were as a person really counted.

How far this was Elm Wood school or how far this was Ron Fisher I can't really say, I know that I felt he had the sort of relationship with kids that I admire, he got a respect and yet an informality with them.

We went back in the afternoon and spent quite a long time sitting in a room where we'd had coffee in the morning, and we sat at a table, facing the door leading onto a corridor which led to the administration buildings. On our right was a group of kids sitting at a table, chatting humourously amongst themselves. I can't remember why they were there, and as break came kids walked into the room and out again.

This is what amazes me about so many schools. The clanging bells and the whistles and the mass rush of kids from school into playground and from the playground into the school and even from lesson to lesson. This I didn't sense at Elm Wood at all - there was a much more gentle flow of work activity to leisure activity and back to work activity. I can't remember any bells, and how did kids know that the end of break or coffee had come and it was time to go back to their lessons? I know we were sitting there before, during and after that time and the kids came and went and I'm sure there was no sound at all.

Elm Wood School is different, built differently, it's organizational principles are different, in terms of time, space, the way in which knowledge is divided up and transmitted. I suspect there is far more dialogue than one way transmission. For a person going there for the first time, I had the feeling of being mesmerized by this sort of difference, yet at the same time it was a school.

I went last term to a College of Education and in one of the groups that I watched was a guy from Elm Wood, he'd left the year before, so he must have been in the 6th form there whilst we were there. He had a missionary zeal about him for Elm Wood, for responsibility, for democracy. He was a lad who contributed very, very well to the discussion that was going on, in a college where the prevailing ethic in his particular group was one that said 'streaming is right, grammar schools are proper. If I'm a working class kid who's made it then this legitimizes even more the existence of grammar schools, if I can do it, everybody can do it.

But he was raising critical questions about hierarchies, status, authority, responsibility, self responsibility as well as responsibility for the community. I know I thought, listening to him, that if he is what a school like Elm Wood produces, and again I have no knowledge at all of how typical he was - then three cheers, amen and everything else for a place like Elm Wood. Here was a lad who was prepared to think, to argue, to reason, not in a bolshy bloody minded way but in a very deeply socially concerned way.

If you read reports like the Jencks Report you can get a bit depressed about what schools do - perhaps schools can't do very much in any case; but if they can, and if that lad was a function of it he was a very powerful testament to whatever processes are going on in there.

My memories of the visit were similar. I had visited the school several times before but felt then that the school had succeeded in innovating to a point where it was changed. A feeling of irreversibility; of success.

This time my first impressions were quite different. The school was surrounded by a sea of mud (the damage caused by the fire, still not repaired, had blocked the main corridor so students had to walk around the buildings to gain access). Windows that had been broken in June were either unrepaired or had been broken again. It was cold and raining.

I found it difficult to find Ron. Teachers I asked said, 'You'll be lucky', 'Now you're asking', and 'He's probably at home'. The last hypothesis proved accurate. I found Ron in his flat over the village grocer's shop just a few hundred yards from the school.

Ron shares the flat with two (?) other teachers. His room is fairly chaotic. An enormous hi-fi system (much admired by his students who are often found using it). A collector's collection of rock records (no jazz) of which ten or eleven LP's seemed in more or less constant use. Magazines piled up around the room, the most used of which was *Let it Rock* which contained several of Ron's articles. Books on local industrial history (Ron was a joint author of one), on Russia and a scattering of sociology (Bernstein's *Class, Codes and Control*, Nell Keddie). Most of the floor space was taken up by an old mattress, the rest by socks, a tennis racquet, gym shoes (once white?), a big trunk, assorted letters (one applying for the post of 'geography teacher'). On the fading wallpaper a Beatles poster and a school report made out in Ron's name and signed by a student ('Could do better if he tried harder').

Ron got serious about Education almost by accident. He was doing a Ph.D. in history but abandoned this and took the post-graduate certificate at the London Institute before coming to Elm Wood. He came there because the woman he was living with moved with her job. The relationship crashed and this seems to have dominated his first two years at the school; a time when everyone else was feverishly involved in educational experiment. As the debates about education went on round him Ron rapidly acquired a reputation as a maverick, bright but unpredictable.

We talk about Ron's joking relationship with his students. He seems to relate to them entirely (some of the other teachers would say totally) through joking. For him joking is emblematic. He carries it around the school with him like other teachers wear long hair or Levis. It is the constant style he imposes on almost every encounter.

Ron feels that joking gives him a relationship with students that is both highly personal and educationally valuable. He feels strongly that the informal ethos of the school has been used by teachers as a way of abdicating from teaching. He feels many of them no longer attempt to teach anything but have simply become submerged in peer group culture.

For him joking isn't just a personal style but a way of short-circuiting the insulation between the culture of the teacher and the culture of the child, a gap which dominates his thinking about education.

To place, or pose, sentinel

That evening Ron's girl friend Pat wants him to go with her to a party, but he arranges for me to meet Jean, the Deputy Head's wife who once taught in the school and now works in curriculum development.

I meet Jean in the pub where she is talking to a group of teachers from the school. It's not a fixed group, there is a parents' evening in the school and people enter and leave as the evening passes. I find it awkward sitting in the pub with this close knit group I don't belong to. Partly it's me not wanting to dominate the conversation, partly I'm aware that I'm an outsider without access to the shared experiences that form the basis of the conversation. I concentrate on trying to listen in to catch the mood and tenor of conversations but I'm aware that they perceive me as uncomfortable.

Also going on in the pub is the local fishing club's annual meeting. All the wives formally dressed to see their husbands presented with silver trophies. Some time after 10:00 p.m. word goes round that the pub has an extension to 11:30. A long evening. I find myself constantly between two conversational groups, or out on the fringe where I can't hear half the conversation, but as time goes on I begin to pick up fragments about the way they see Ron. Jean is strongly critical of him. She says his claims to a unique relationship with the kids doesn't hold up. Liz (the remedial teacher) has equally good relationships and is just as much a joker, (this fits with what I've seen of Liz in school). We go on to talk about the school. I mention how it seems to be to have changed since my last visit, how the enthusiasm seems to have gone, the buildings look battered and the teachers seem tired. (On reflection it also seems to have become highly introspective - there is no longer that voracious appetite for knowledge from outside which once characterized the teachers at the school. Once they read the latest from Bernstein, now it's *Jonathan Seagull.*)

Jean says, yes the buildings are a little worn, but what do I expect of a school now three years old and heavily *used*. She feels that the first two years of the school, which I characterized as 'exciting' was really a period in which there was 'a lot of thrashing around', and now she sees 'more solid groundwork'. She says she sees things, in Peter's English lessons, for example, which she doesn't see in other schools she visits in her work as a curriculum developer. One nearby school which has a reputation rather similar to that of Elm Wood she describes as 'very traditional by comparison. They haven't really closed the gap between teachers and kids like they have at Elm Wood'..

John challenges Jean's strong attack on Ron. He admits he is unreliable but feels you have to apply different criteria in assessing him as a teacher. Ron 'has a different style to most of us, and you have to admit he does get through to some of the most difficult kids'.

Jean doesn't accept this; she says the lower 6th are always complaining about him. When I ask if she thinks they feel Ron lets them down she says, yes she thinks they do, and asks Liz what she thinks. Liz changes tack. Ron, she say, is an amusing person and a great guy on an evening out, but she too is clearly not entirely happy with him as a colleague.

My impression is that Jean does not like Ron and feels some resentment towards him, John and Liz share the resentment to some extent but only with reluctance, basically they seem to like Ron, they just find him difficult to work with.

A later conversation with John reveals that he doesn't entirely share Jean's view of the current mood and state of the school. The teachers who have been there two or three years are tired (a word he uses repeatedly). Individually, teachers like Peter may be doing good things but the school as a whole has lost its momentum. He sees the critical problem for the school as how 'to salvage what is left of the original spirit and transmit it to the new, younger teacher'.

A stopping place on a journey

Finally the pub closes. Jean offers to put me up for the night. A twenty minute drive cross country takes us to a neo-Georgian estate laid out round an instant village green. Everyone is in bed. (All evening Jean has been saying she has to be home by 9:30). She makes coffee and calls her husband down to meet me and to explain why she has

brought me home. Maybe he has been asleep – he doesn't look happy. Mike is deputy head at Elm Wood; again we get talking about Ron.

Mike is extremely critical of Ron, says he is hopeless, inconsistent, unreliable. Jean says, 'you wouldn't give him a job, would you Mike?' and he says, emphatically, no, he wouldn't. I ask if he would be glad if Ron left the school and he says, yes he would. He concedes that Ron gets some students through O-level that he didn't think other teachers would have done ('but I don't know how he did it'). He also concedes that Ron has some good ideas, but doesn't think that he has the application or commitment to carry them through. He quotes 'urban studies', which Ron initiated in the school and now, 'churns out articles on every few weeks it seems', but which in reality has been non-existent in the school for 18 months. Ron, he says, is too old to be an adolescent. He jokes around, not out of any educational commitment but because that is the only kind of relationship he is capable of.

Next morning Mike gets the kids' breakfast and gets them off to school before Jean appears, then he drives over to the school, dropping me off at Ron's flat.

Position in the social scale, as higher or lower

Ron asks how I got on ('I felt a bit bad about leaving you'). I tell him about the resentment the other teachers seem to feel about him and we talk about it on and off during the rest of the morning.

He denies being unreliable. He says he teaches 18 lessons a week out of 20, more than most teachers, and says he hasn't missed a single lesson this term. Everywhere we walk round the school students stop him and say, 'Hey Ron I need a report from you. Where's my report?' Ron says he doesn't understand it. He's sure he's done all the reports. He *likes* doing reports. He enjoys sitting with the kids writing them together. He's *sure* he's done some of the reports that other people say are missing. He doesn't want to suspect conspiracy, but everyone (teachers and students) seem to *expect* him not to have done them ... .

As I watch him teaching it does seem to me that there is something about different to other teachers, even the other jokesters like Liz. Ron doesn't seem to *represent* school like other teachers do. He gives the impression of simply being there because it's a job. In some subtle and indefinable way he conveys a kind of insolence that students frequently convey, but never teachers. There is something confident, arrogant and deeply irreverent about the way he acts. He seems to carry no responsibility for the

ethos and culture of teaching. It's not just that he swears, most teachers in the school do and some much more. Not that he jokes, because other teachers joke. Not his dress or appearance which is conventional alongside many of the staff. It's a quality of presence, something in his total personal style.

We talked of how Ron thought he was seen by other teachers in the school. He felt his reputation as a jokester stood in the way of any other kind of recognition, and thought perhaps some teachers saw in him a threat to their own identities in the school:

> It seems almost impossible to get it over to people that what they are actually seeing and judging you on as your whole relationship, is actually mainly your point of entry. It really annoys me because I sense that what most teachers think is that because you are a jokey sort of person with them, as well as with kids, you don't care, but are just in it for laughs. I've almost heard that said and I've certainly had teachers say, 'I don't think you care about kids as much as I do'. I suppose if I wanted to get out on a hobby horse, what annoys me most of all is that the stereotyped teacher is an over-earnest individual. The classic phrase all the while is, 'I'm very worried about such and such', recurs all the while, and you've got to *appear* to be very worried - that's what annoys me.
>
> I'm very worried about a lot of things, I *care* about lots of things, but I don't appear to be very ulcerated about it. It seems to me that there is a very strong staff desire to have earnest teachers and for teachers to appear earnest, and that has persistently annoyed me, I have talked about it to all sorts of teachers because I suspect that what's most annoying about jokes is that teachers can use it as a say of devaluing you. They can say, 'Look at him over there, he doesn't give a bloody damn'. I'm sure that goes on. One teacher said to me, 'Ron I'm not like you, I can't joke about with kids. I *care* what happens to my kids'. I think I am subject to some paranoia on the grounds of how teachers respond to my relationships with kids - I sense that they feel threatened - jokes are a sign of intimacy and success with kids, particularly with kids who are classically hostile, who appear to be totally defused when talking to you. Now that, as you say, is partly a threat and also is an exclusive thing .... The dual threat is there in front of the teacher each time, kids are taking you, another teacher, away from them, *and* you appear to be doing quite well with them.

Watching Ron teach and listening to him talking to other teachers, they do mostly seem wary of him. It's as though he continually threatens to pull the ground from under their feet. He doesn't joke around and then get down to work. He jokes about everything, continuously. Reports, worksheets, beliefs and values. Nothing is sacred. In the time I was in the school the only lull was a short conversation with a girl who was worried about her report. Just that once Ron took her to one side (most conversations with Ron

are semi-public and anyone can join in). 'Don't worry,' he said, 'I'll see everything is all right.

An act of a pageant

Recorded while walking round the school at 4:00 p.m. Ron seems depressed. We walk into the Resource Area.

Rob: Christ this has changed!

Ron: How much has it changed?

Rob: Well, the first time I came here there was a lot of books in here, bookshelves dividing the area up. Last summer the books had gone but it seemed very active. What's new that I like are the murals (*large flowered murals on some of the walls*).

Ron: Yeah, that's nice isn't it? That's an example of a creative tension
between teacher desires and student desires.

Rob: Whereas that's just rubbish isn't it? (*A wall covered with football players' names*).

Ron: (*Laughs*) Well this (*the central resource area)* has become a football pitch now.

Rob: You mean nobody teaches in here?

Ron: Well, Dave is supposed to be teaching in here but *that's* his class (*pointing to four tables - no chairs - in one corner*). he's only retained about four people. The rest have either gone off into other
classes or fucked off altogether. It's sad isn't it? It really eats me up now going round.

Rob: I can understand how an HMI would react coming in here.

Ron: Yeah, they came in at twenty past eleven and people were still playing football. The blackboards are the goals (*putting on a mock official voice).* 'Let me just explain the architecture of the school. The blackboards are in fact its goals

Rob: The whiteboards. Did the inspectors give any signs of what they felt?

Ron: They said there were some good things going on but what they were really offended by was the general appearance of the school and certain particular areas. Like they said the Resource Centre was a disaster and several other things were total disasters. It's always been true there's a been a lot of vandalism. It's not

that the incidence of vandalism has gone up, just that its effect has finally taken its toll. If you kick a building around fairly regularly for three years in the end it begins to look suddenly kicked in.

Rob: Was there any move to jazz things up for the inspectors?

Ron: Nothing at all.

Rob: They really saw it as it is.

Ron: No effort at all, which I think says a lot for either the apathy or general honesty of the school. I think it was probably a bit of both actually.

Rob: How have the teachers reacted?

Ron: All most of them talk about to the kids is football and pop music.

Rob: Do you see that as a sign of success?

Ron: Well, no. I think it's a sign of substantial failure actually. Most of them came in with a lot of ideas and they've just got knackered in the course of three years and abdicated. There are still good things going on but most teachers have just locked themselves in their rooms, tried to save themselves. That's the difference in the school now. People just didn't talk any more, they just go home and rest. People don't go down to the pub anymore.

Rob: They don't know each other any more?

Ron: No - new teachers who come in, know nobody except themselves, they just don't enter into any kind of community. So there's no way of selling ideas to new teachers either. For them it's just rather a shambling new school that they've rolled up in, nothing particularly exceptional about it. Nothing really exists to indoctrinate new teachers - to sell the whole ideology of the place to them.

Rob: That's what it was very good at.

Ron: Yes, superb, but you see, you can't go on doing that, it's too tiring. The excitement of the new building, the new institution obviously fades anyway doesn't it? With time, you're just repeating yourself. There's a kind of consensus in the old guard about what it's all about and that's enough to sustain us.

Rob: Do you talk about the past at all, the myth?

Ron: Oh yes there is, very much so. Not that it was necessarily better, but it was certainly bloody exciting

then, if not a bit hairy - certainly it was very hairy, we took a mot more risks. Yes, there's a myth about the past. I've heard teachers say 'Oh you wouldn't know, you weren't here in the first year', definitely a lot goes on, which annoys a lot of the newer teachers. I think that's a very strong myth. It's always great being in at the beginning of something. It's been the most exciting thing I've been through in my life I think, and I only paid partial attention to it at the beginning, it never entered my consciousness in the first year or two really, I didn't feel a strong sense of commitment. I was more involved in personal affairs. I get really depressed when I think about it. It's just the way a place grows old, I suppose. It's the whole aging process speeded up. Everything is less and less interesting as you get older and you get more and more tired; everything tires you more and consumes you more, none of the exhilaration is there. You're not doing anything for the first time. It's the ageing process in an institution. It's just that it takes three years in a school and eighty years in a life time.

Rob: Do the kids talk about it at all?

Ron: Oh, that's why I wanted those kids to come today. I went down to the launderette with Pat one Sunday afternoon, we met a crowd of them going by on their bikes, and they saw us and came in. One of them was that kid I did a report for . . . and he started off, "ere, do you remember in the first year'. There was just a long list of anecdotes, none of which I could remember actually, that they all remembered one after the other, "ere, do you remember when 'e did this, and 'e did that'. Pat was just buckled up with laughter. "ere do you remember the day you came in with smelly socks and you was asking everybody what the smell was, and somebody realized it was your socks.' Oh yeah, they thought the first year was a real bombshell. It must have been a real amazing thing for them, to suddenly get somebody who was so different - not just me, but teachers in general were so different and so open and so amenable to a laugh of any sort. Yeah, I think it's radically affected the way they look on that first year. That was good, we talked for about two hours about things that had happened 'do you remember this, do you remember that', and I haven't had them for two years.

Rob: They've left now have they?

Ron: Oh no, they're in the 4th year now. I started up with them again, this was in the summer and I was going to start taking them again, and I hadn't had them for two years and that's when they started to say "ere we're going to have you again, 'ere do you remember'. And it was really good. There's a terrific sort of camaraderie - I also went into a pub

with Pat about three weeks ago and there was a crowd of kids there who had all left and all of them, every one of them came up, two of them stood with us all evening, somebody bought us drinks and chatted to us and introduced us to people, and generally showed us around the pub, it was quite amazing. Literally every kid in there that I'd ever taught, came up and said something, most of them went through the motions of buying a drink or offering a fag or some kind of money sacrifice. It really was strange, I felt quite tearful once or twice, it really touched me, I really was quite taken by that. I'm sure you do touch more this way, you do actually get .. . they do miss you, they do identify with you, something happens, very different to what happens in a normal school. It happens with a different group of kids maybe, it happens to kids who normally are pissed off and glad to leave school and wouldn't want to say 'bum' to you if they saw you.

Rob: It's not all the ones who have gone on to a college of education?

Ron: Oh no, it's the ones that end up in the local pub, that's the group I'm talking about. It's not radically altered their lives maybe but in a way it has. When they think of school they think of an experience which was firstly happy and maybe, just perhaps, successful. It certainly wasn't a trauma, it wasn't something to pull out of you - it was something to remember and enjoy remembering, and that's bloody important I think. Even if that's all, that's for Elm Wood, at the very least it's a happy experience. I wouldn't want to make that argument about it of course, but I think it's a substantial one.

Looking back

Journal entry; 20th December

As I left the school I was aware that the image I had of it that time was very close to the image Ron has. I've been there several times before, once for a period of two weeks in its early days, and on previous visits I think I've left with a more objective view. Right now, I thought on the bus back to the city, the vision of the school has of itself is blinkered and fragmented and it is difficult to see it at all except filtered through one perspective. There no longer seems a strong communality amongst the teachers which over-rides individual definitions of the situation. The buoyant optimism Phil and I felt on our visit last June seems to have dissolved. But perhaps I simply saw Ron on a bad day when he's had a row with his girlfriend.

This account attempts to tell the story of two days in the life of Ron Fisher, my life and his. It is presented in the form it is for a number of reasons. One is out of the belief that people in the situation know it best. Generally it is the parent who best knows the whole

child, the teachers who best know the students, the students collectively who best know the whole school. Experts can know a lot about a little. They can bring unusual and sometimes bizarre perspectives to bear on a familiar situation. They can generalize from the instance. But the language of the expert is essentially the language of generalization and abstraction. Useful though generalization often is, I believe that there is also a need for knowledge of immediate experience.

Second, the focus on the person, and the interrelation of personal and social identity, is intended to redress a hidden assumption in much writing in education. We talk a lot about plans, designs and theories: very little about persons. Yet in the folklore of the education system the qualities of persons loom large.

When research does consider personality, it considers it from the point of view of generalization and theory. When practitioners consider 'personality', they consider the unique and idiosyncratic qualities of persons. The gap between the two usages creates hidden agendas in decision-making. Curriculum development decisions may be justified in the rhetoric of theory, abstraction and design; in practice they are more often taken on the basis of judgements made about the key people involved.

Other points that emerge from the study are, in the order they come to me are:

- Some feeling for the indivisibility of curriculum and pedagogy, at least in this school.

- How the close focus on one moment in time (like looking at a photograph), has the effect of highlighting the changes that individuals and institutions undergo seasonally and over time. Looking back I recognize both Ron and Elm Wood School in what I have written, but I also recognize that both have changed in the interim.

- How the connections between Youth Culture and the curriculum reform movement of the sixties is more complex than I first thought. For Ron Fisher there definitely is a connection, he identifies strongly with youth culture and feels that to be important in his teaching. But despite his attraction to rock music and teenage life styles it is the school he has become committed to, almost against his own sense of direction. Style may disguise commitment as often as it reveals it.

- Involvement in innovation, for Ron at least, is not simply a question of technical involvement, but touches significant facets of his personal identity. This raises the question for the curriculum developer, what would a project look like if it explicitly set out to change the teachers rather than the curriculum? How would you design a project to appeal to the teacher-as-person rather than to the teacher-as-educator? What would be the effects and consequences of implementing such a design?

- Ron works in a school that has been generally recognized as a centre of innovation. Would teachers in schools where innovation has come from outside sources balance their commitments to personal and social identity in the same way? How typical is Ron? How typical is the school?

Postscript

What do you think the effect of the Beatles was on the history of Britain?

I don't know about the history. The people who are in control and in power and the class system and the whole bullshit bourgeois scene is exactly the same except that there is a lot of middle-class kids with long hair walking around London in trendy clothes and Kenneth Tynan's making a fortune out of the word 'fuck'. But apart from that, nothing happened here except that we all dressed up. The same bastards are in control, the same people are runnin' everything, it's exactly the same. They hyped the kids and the generation.

We've grown up a little, all of us, and there has been a change and we are a bit freer and all that, but it's the same game, nothing's really changed. They're doing exactly the same things, selling arms to South Africa, killing blacks on the street, people are living in fucking poverty with rats crawling over them, it's the same. It just makes you puke. And I woke up to that, too. The dream is over. It's just the same only I'm thirty and a lot of people have got long hair, that's all. Nothing happened except that we grew up; we did our thing just like they were telling us. Most of the so-called 'Now Generation' are getting jobs and all of that. We're a minority because of something or other.

John Lennon (quoted by Wenner 1970)

SECTION THREE
EXPERIMENTS IN METHOD AND METHODOLOGY

Regretably . . when . . researchers . . come to write their reports . . they usually change their mode of address. The people who were 'you' during the study become 'them' in the report.

Kemmis 1992 p. 10

This section explores and extends the methodological questions concerning the limits of educational ethnography raised in Section Two through a series of demonstration studies. The issues considered include the neglect, in conventional educational ethnography, of description and narrative, collaborative research, subjectivity and the uses of visual data.

Chapter Six
Documentary Accounts: Description and Narrative
This chapter explores the nature of description in the context of classsroom/curriculum research, examines the notion of 'portrayal' and questions the notion of time implicit in ethnographic research.

Chapter Seven
Advisers as Researchers
This chapter looks in particular at the ways in which author, subject and text interact in descriptive studies, drawing on studies of advisers and inspectors in an English LEA. This chapter documents the development of a collaborative project from an 'ethnographic' starting point.

Chapter Eight
Other Rooms: Other Voices
This chapter attempts to stretch the potential use to be made of quotations (the staple of educational ethnography) by relocating research data in dramatic form. It raises questions about audience and about the need to find means for the public communication of research.

Chapter Nine
Using Photographs in a Discipline of Words
This chapter attempts to realise the potential of visual methods in studying curriculum/classrooms using still photography as a test case. A collaborative study with a photographer in a London secondary school provides the case material.

Chapter Six

DOCUMENTARY ACCOUNTS: DESCRIPTION AND NARRATIVE

> *I've always admired those reporters who can descend on an area, talk to key people, ask them questions, take samplings of opinions, and then set them down in an orderly report very like a road map. I envy this technique and at the same time I do not trust it as a mirror of reality. I feel that there are too many realities. What I have set down here is true until someone else passes that way and rearranges the world in his own style.*
>
> John Steinbeck,
> *Travels with Charley*

One of the key features of the shift in method and methodology between the studies reported in Chapter 3 and Chapter 5 is an increased emphasis on the use of narrative description. The text in the first study relies on data that is primarily transcribed talk with a minimal of contextual description. This in turn relies on a sub-text that assumes that the writer and the reader share a common stock of knowledge about classrooms and classroom interactions within which the carefully selected, framed and clipped quotes from transcript make sense. Those reading the extracts of transcripts from Jim's and Colin's classes bring to their reading an understanding derived from experience. More or less consciously the reader constructs the scene in the mind's eye and fills-in the transcript with the missing intonation, phrasing and tone of voice. This of course can lead to very different 'readings' of the text, even on the part of the observer, as is revealed in the 'strawberries' incident.

In 'Stations', the contexts studied are less determinate and less easily taken-for-granted by the researcher. Descriptive narrative becomes necessary in order to create a frame within which the transcripts that are quoted are made to make sense.

In this chapter I will provide some further examples of descriptive narrative and discuss some problems that arise when the researcher takes on the task of providing a documentary account. This chapter will draw on three studies: two case studies of science education carried out in 1976-7 in schools in Boston and Alabama and a study of LEA advisers and inspectors carried out in England in 1977-9.

Description and interpretation

Central to description is selection. As soon as the researcher provides information, and uses some words rather than others to do so, other information is lost or neglected. Consider for instance this extract from an interview I had in her home with Janice, a twelth grade student selected by the guidance counsellor as student who was doing well

in math at school despite disadvantages. I asked Janice about the subject choices she had made:

> I chose home economics because I wanted to learn to cook and sew and look after myself. I chose math because I liked it. And I chose chemistry because I thought I needed it
>
> (Walker 1977a p. 32)

Taken out of context this might be read in several ways, but it was significant that this interview took place in Janice's home, a small weatherboard house, not much more than a shack, in a black area of a small town in the heartland of the Deep South. In presenting the interview I introduced it with a brief background description:

> Janice is one of a family of six children. She has two older brothers who are both in College, a younger brother and a twin brother both in school, and a sister who died suddenly just before leaving home to go to college. Janice also has a baby boy born last summer.
>
> (Walker 1977a p. 32)

This brief description can be read as a series of coded messages to the reader, which will be filled-in according to the background information they have at hand. This is a poor family, held together by Janice's mother who has devoted her life to getting her children a college education against all odds. Janice went to High School only one year after the school system was desegregated by order of a Federal court judge.

Even this description is cryptic and there is a good deal more that could be said which would build on the information that has been given. Indeed, Shirley Brice Heath, in her account of a similar community provides several layers of contextual information within which the words people use come to take complex meanings (Brice Heath 1983).

The key point is that description is never neutral. It involves selection and ordering of information and this necessarily draws on the interpretations made by the author.

Description in evaluation

In evaluation studies the need for the researcher to adopt an interpretive voice becomes especially acute, for often the observer is faced with trying to describe to an unseen audience what it is that makes a particular situation innovative or unusual. As Stake has pointed out, it is the emphasis on particularities (rather than generalities) that tends to distinguish evaluation from research.(Stake 1967).

A further example might make this clear. The extract that follows is from the Boston case study and develops the style of descriptive reporting adopted in the case study 'Stations', reported in chapter 5.

This piece was included in the study in response to a question raised by principal to the site visit team.[1] He made the point that whatever proposals emanated from bodies like the NSF, they would be limited in their impact and effectiveness unless they took into account the 'real world of the administrator in an inner city school'. He went on to say that such agencies should take into account the training available to principals and the opportunities provided for professional development. The best he could find to say about his own experience of administration programs at three different universities was that they included things that were interesting or useful to him on reflection after several years experience, or that they provided him with a rationale for decisions he felt he would have taken anyway. What seemed to be lacking, he felt, was any real understanding of the day-to-day work of the administrator.

As a result of his question I suggested I spend a day with him and attempt to document the 'day-to-day' events to be included as a short section in the case study.

The real world of the administrator

Snapshot 1

The principal sits in his wood-panelled office discussing the effects of next year's proposed cuts in the number of school aides with the two assistant principals. At his feet is the megaphone used the previous day for marshalling the school's occupants following an evacuation of the building after a fire alarm. Around the room are numerous photographs and a small collection of certificates. (Wallet-sized pictures of last year's graduating seniors slipped around the frame of a bulletin board, family pictures, photographs of the principal entertaining distinguished visitors to the school, a rather fine candid shot of the principal standing in front of the school listening attentively to a student, a more formal shot of him addressing the assembled student body). A small table is loaded with impressive sports trophies from the past and a striking vase with the face of its maker on each of its four sides which the maker presented to him after winning first prize in a city art contest.

It is 7:30 am; Mr Henry has been in the building twenty minutes and has already spoken to more than twenty people. Every time he puts his head out of the door there are people waiting to see him: students, teachers, visitors to the school. Several people function to screen the waiting line; two secretaries, the two assistant principals and an administrative assistant. In an open area office, these things are handled delicately and informally.

Mr Henry has a schedule for the day; a meeting with the two assistant principals, a meeting with the guidance staff, a meeting with a salesman from a yearbook publishing company; then at 1.30

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[1]The design of the study called for case studies of science education issues in eleven school districts in locations across the US. At each site field workers were in residence for periods from three to twelve weeks and towards the end of their stay were visited by a team of scientists, science educators and community members whose tasks included offering critical commentary on the emerging case study.

he is going down to the school department offices, returning to the school later in the afternoon and perhaps staying for a meeting of the parents' committee at 6:30. It sounds mostly routine, but there is no telling what incidents and events will punctuate the formal program.

Already on his mind is a bomb threat. Last night he received a call to say a bomb would go off in the school at nine o'clock. There seemed to be no point in telling the police immediately, so he called them from home on his way into school. Two policemen were in the office when he arrived. After a brief meeting with the two assistant principals, two teachers were sent out to tell one teacher on each of the ten floors of the building to check for any suspicious circumstances. 'Look in the bathrooms and for any open locker doors', says Mr Henry. It isn't an unusual incident; he knows what to do, but there is always the thought that this one could be real. (I expected, around nine o'clock, to see him glancing nervously at his watch, but I don't think he looked once).

Snapshot 2

A young teacher from the bilingual department catches Mr Henry as he puts his head out of the office door, to tell him that there is a dead mouse in her classroom. 'Call the custodian', someone says, to be met by laughter (an accepted school joke - the custodian can never be found). Mr Henry says he will deal with it, leaves the office and proceeds upstairs by way of the escalators. Once in the classroom, he puts the rather badly mutilated mouse in a stray lunch bag and removes it to the downstairs trash bin.

The decision to go seems almost impulsive. A chance to escape the office, to see something of the school, and to be seen. A way of making sure that something actually gets done with the minimum of fuss and delay. A rare opportunity perhaps to do something concrete, tangible and useful. Perhaps also a chance to escape the confines and false dignity of the role.

Snapshot 3

During homeroom Mr Henry picks up the 'phone in his office and dials into the school intercom so as to read the morning announcements. 'Congratulations to the chess team . . .Would the basketball team report to the gym at 1 p.m. . . .' Part way through his assistant adds some notes to the pile and Mr Henry switches from English to Spanish. When he has finished he calls to his assistant, 'Hey next time give me some warning. My pronunciation is rusty, especially the numbers.'

Snapshot 4

The visitor is sitting outside the principal's office. He has not been to the school before and doesn't realise that it is the principal she has seen coming and going through the door. When she does enter the office, she can't get over her own sense of surprise that Mr Henry is the principal. It isn't just the fact that he is younger than most people expect, but something about his personal style. Elegantly dressed in a three piece suit, expensive shirt and handmade shoes, he could pass as a successful executive in any business outside education, and he can use his considerable charm simultaneously to create both informality and a sense of distance. The visitor says she finds it hard to express these things; it's just that Mr Henry isn't quite her image of a typical high school principal. She has the feeling of some dissonance between the man

and his office, a lack of fit between the style of the person and the style of the room.

Snapshot 5

In the meeting with the assistant principals, and again in the meeting with the guidance staff, there is no doubt that Mr Henry is in charge. He listens patiently, sometimes attentively, conveying a lot through subtle shifts in varieties of the informal style that seems to be his hallmark.

'I've learnt the management lesson of the sixties'. he says, 'which was how to humanise the administrator. But you can't run a fast moving school like this just by being human.'

When he first came to the school he was unused to the scale and size of the place (2,300 students), having mostly worked in small scale settings. He says he had to learn to adjust to the workings of a large school while retaining his educational values. His previous school was an Alternative School where people were closer, and inevitably more dedicated to teaching than teachers in a regular public school.

Snapshot 6

A teacher comes down to the office angry over a confrontation with a student and saying he is going down to the court office to file a complaint. Mr Henry clearly feels that the teacher is over-reacting, but attempts to clarify the situation. Later he confronts the student, who comes down to the office even more angry and complaining that the teacher has been marking him down on his grades. Independently he had taken his work to the head of the science department and had this suspicion corroborated. Mr Henry and the assistant principal argue the case with the student, trying to persuade him to stay with the class, even if he feels he is being discriminated against. The student, a mature older boy/young man, finally breaks into tears. The student, the principal and the assistant principal are all black; the teacher white. No one talks about it as a racial incident, but it is hard for me to tell what understones the situation contains for those involved. The critical point perhaps is that it is not an incident that spreads, but is contained between the participants.

Snapshot 7

Following an in-service meeting in which one of the assistant principals (in Mr Henry's absence) criticised the teachers for arriving late in the morning, a group of teachers in the teachers' lounge are discussing Mr Henry as a principal. It is interesting that Mr Henry is not a frequent topic of conversation amongst the teachers. He presents himself in the role of trouble-shooter and organisation man, perhaps feeling closer to the students than to the teachers. Any changes he encourages in either the school or the curriculum he tries to make sure are seen to come from the faculty rather than being imposed from above or from outside. Some teachers feel he has little understanding of what is going on in the school and it is true that any vision he has for the school is something he tends to keep to himself. On the other hand, the teachers defend him in terms of the good image he presents to the outside. It is in the community and at the central office that teachers see him as being most effective; perhaps paradoxically, he sees himself as the 'inside man'. Inevitably he occupies a salient position

> in the city. He is the youngest high school principal ever appointed, the first black and the first outsider to the system appointed in forty years. Like others who have risen rapidly to power, he lacks a penetrating informal network outside the school and so fits uneasily into a system known for its patronage, insularity and corruption. The students are quick to make the inference. Two students waiting outside the office compare him to President Carter; but as one points out, 'his secretary, she don't look like no presidential secretary'.
>
> (Walker 1977b, pp. 20-23)

Some will see this as journalism, not research. I am not sure quite where the line of demarcation lies. Certainly there is a conscious attempt here to engage an audience, though perhaps not the general audience that might read a particular magazine or newspaper. The writer is written into the account, judgements are made, things are included in the account in order to code ways in which this school, and this principal, are atypical. The intention is to provide some clues as to how the job of principal as Mr Henry experiences and interprets it is both like and unlike the role of principal in many other schools that may be more familiar. Mr Henry is not typical, and this description, albeit brief, stops the reader going too far in extrapolating from their own experience.

Case studies and the problem of generalisation

Often the question is asked of case studies as to how the reader can generalise from single cases. The account of Mr Henry's day casts an interesting light on the question, for it is (perhaps perversely) written in such a way as to make generalisation difficult. But to see this as just an atypical case is to misunderstand the problem of generalising from cases, for much educational research assumes that the problem of generalisation in educational research is essentially the same as it is in empirical scientific research. It isn't! In cases like the ones described here the main problem faced by the writer/researcher is in making generalisation difficult rather than making it easy. The task is that of stopping the reader from overinterpreting the descriptions and accounts given and attempting to disrupt stereotypes. Generalisation is not the problem, in the sense that most people have an inbuilt capacity to generalise from single cases, and are readily able to relate their own experience to things they read about. The problem for the researcher is not to encourage this process so much as to disrupt it, and in particular choosing those points in the account to introduce ambiguity or discrepency.

In this account I faced a particular problem - whether or not to include in the account the fact that the principal is black, and if so how to introduce the fact. The location and sequence of disclosure in a descriptive account is crucial. If I had started the account by saying that the principal was black, or omitted the fact, or put it at the end, however I made this decision, the outcome would have shaped the perceptions of the reader. At the end the information would be the same, but at what point in the account this fact was

introduced would change the way most readers would respond to other parts of the account.

In this sense the text is manipulative and the exercise is journalistic in the sense that the writer is setting out to confront the audience. This implies that the writer exposes his or her own values, if only in choosing the ground of debate. The researcher becomes an advocate.

There are ways that this tendency can be checked, by building in feedback to those involved, the use of site visit teams or other 'critical friends', but the essential problem remains. It would, though, be misleading to see this as just a problem for qualitative research. Anyone who puts pen to paper, or finger to keyboard, faces the same problem. Much of the work that goes into presenting measurement data consists of a search for what is most meaningful and most significant, and such judgements do not simply fall out of the data ready made. Indeed it often takes months of manipulation and adjustment to find frequencies or correlations that provide a central message for the report. Tables of figures presented randomly would be mostly useless and probably ignored.

Description and subjectivity

I have considered some of the problems that arise in ethnographic research when there is a need to provide descriptions of people, events, incidents and institutions. To end this chapter, I will develop this theme further, looking particularly at what happens when the research attempts to move beyond descriptions of subjects and their actions in order to take account of subjectivity. Ethnographers sometimes describe this in terms of a distinction between the 'etic' and the 'emic'.

The terms 'etic' and 'emic' derive from the work of the linguist and missionary Kenneth Pike[2]. Pike encountered the problem that what appeared to be an adequate ethnographic account to an outside observer did not describe a culture as it was seen from the inside. In particular the descriptions and analysis he made as an ethno-linguist, which seemed to meet the demands of anthropology, proved inadequate when he turned to his role as a missionary and attempted to make translations of the bible. This latter task demanded an 'emic' description; an account of the culture as perceived from within. (The terms 'etic' and 'emic' derive from the linguistic terms 'phonetic' and 'phonemic'. The first being a description in terms of sounds, the second in terms of units with meaning.)

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[2]Pike's work is not easily accessible, but a concise account is given by Marvin Harris (1964)

In the Boston case study I encountered this problem in writing a case study of the school. It was one thing to provide an account from the point-of-view of the outside observer, but I came to the point where it seemed important to give sense of what it was like to be a science teacher in the school. Faced with this problem, I wrote the following, which eventually became the opening section of the case study:

> **Up in the morning and off to school**
>
> Seven ten a.m., and after a hurried breakfast Pete finds himself out of the house and driving his traffic-scarred car towards school. He has to start early so that he can sign in before 7:30, fifteen minutes before homeroom.
>
> There are no direct highways to the school, and the city is noted for its elaborate, and often antiquated, road system. (Local legend has it that the roads follow what were once cow tracks.) Strangers to the city spend much of their travelling time lost or disoriented. Pete's route is well-worn and familiar, but nevertheless he spends much of the journey sitting at lights, waiting to turn into traffic, or inching along what a little later in the morning will become a major traffic holdup.
>
> It's a frustrating start to the morning. Pete frequently finds himself cursing the driver in front who won't stay in lane, or the car that blocks the turn-left arrow at the lights. A cyclist pulls sharply across in front of him at an intersection causing him to brake suddenly. Pete leaps out of the car, graps the small black kid by the coat and shouts at him. The boy hangs his head and mutters an apology. Two hours later Pete confesses to some of the teachers in the teachers' lounge that he feels bad about the incident and that he surprised himself at his instant aggressive response. But it is an incident that haunts him for the rest of the day, and later that night he depresses himself thinking about his time in Vietnam. Back in the car he consoles himself with the thought that the teachers who live out in the suburbs leave home half an hour earlier, and suffer more from traffic hold-ups and bad weather. The banks of frozen snow at the side of the road are a reminder that at any time the weather can make the drive more hazardous and double the time it takes.
>
> The traffic is worst within two blocks of school. As he follows an ancient tramcar that always reminds him of those movies about wartime Poland, the front wheel of the car drops into a deep hole in the road, sending a shudder through the front suspension. It is with a sense of relief that he finally turns off the main road into the area surrounding the school.
>
> The morning news on the radio continues its daily narrative of wheeling and dealing in city politics, and the view through the windscreen adds its own commentary to the story. This is a city dominated by public institutions. Fifty universities, another hundred colleges of various kinds, several major hospitals, the world headquarters of a major church, a score of nationally known museums and galleries and one of America's finest symphony orchestras. Within a quarter-mile radius of the school, which occupies a new ten floor building on a restricted site, are three large hospitals, four or five colleges, and the city's most prestigious

(examination-entry) high school. It is an area where people work, not one where they live, and the work that they do is overwhelmingly that of a service economy: teachers, students, doctors, nurses and a minor army of cutodial staff, security men and cleaners. Parking is a nightmare.

The radio interviewer is talking to an economist about the overall state of city finances. The economist is saying:

Culturally, this is a rich city; but partly because of that, its tax base is sadly depleted. We've no major industry here, no natural resources, no cheap supply of energy. We may be a national centre culturally speaking, but in economic terms we're really only a regional centre. Compared to the other great American cities, we're poor and getting poorer. Everyone talks about New York City going bankrupt, but New York has seen a period of economic growth we've never seen. We're perhaps the last of the great old American cities: an immigrant city the poor pass through on the way to better things, and if they don't pass through they just get left behind. It costs a lot to keep this city going. Look at the schools: it costs twice as much per high school student in the city compared to the rest of the state, an average cost that actually gets greater per student as numbers in the schools decline. With 55% of the city tax-exempt, we are rapidly reaching the point where we have to decide whether or not we want to maintain life in the city at even its present rather low ebb. It's like the decision you have with a coma patient. At what point do you withdraw life support systems?

The interviewer seems taken aback by this outburst. Floundering for a question, she asks, '*Do you think there is any chance of things getting better?' 'That's not the question*', the economist replies; '*The question is, how much worse is it going to get?'*

> Pete's car runs down the slope into the school's underground car park and the concrete walls cut out the radio signal. 'Oh well,' he sighs out loud to himself, 'another start to another day'.
>
> (Walker 1977b, pp. 1-2)

This extract goes a step beyond narrative description, a point that will be taken up in the next chapter. Why write it in this form?

It is true that some of the content included in this extract could have been presented in more conventional form. I felt, for instance that it was important to say something about the political, economic and social context of the school, because without some understanding of this context it is difficult to understand much of what went on within it. This could have been done in a less subjective style, but I wanted to combine this message with others. In all schools there is a strong sense of boundary between what goes on within the school and what happens outside. In this school the boundary itself was unusual and it was important to signal to the reader that she or he might need to leave some assumptions about schools to one side in entering this case study.

I was severely constrained by space. The brief I was given by the project directors was to write the case study within a 50 page limit, a limit that created a strong element of editorial self-discipline given that I was in the school for twelve weeks. I was also consciously constrained by my own limitiations, Boston is a much studied and written-about city. Those who live, or have lived, there include the best social scientists, political analysts, economists, journalists and writers in America. As a foreigner and there for only twelve weeks I knew I could not hope to give adequate consideration to a complex situation with a richly documented history.

Given the problem of including in the case study a theme that was too significant to omit or overlook, yet too involved to account for adequately within the constraints of time, space and limited talent, I opted for a style that emphasises surface impressions rather objective argument. Hence the third person, for using 'Pete' allowed me to portray the sitaution as perceived by someone it rtaher than work through the qualifications that would be demanded by a conventional analysis. Using the literary device of writing through Pete allowed me the licence to signal ideas, meanings and significances to the reader without having to work through the references, qualifications and balances that would be required if the same information were to be presented in the form of a scholarly argument.

Perhaps as important, 'Pete' allowed me to place the teacher centre-stage. I could have written more generally about 'teacher perspectives', but that did not seem as convincing a way of saying what this extract says by demonstration.

The account is fictional. Pete did not exist, but was synthesised from a number of teachers in the school I knew and talked to. All the teachers in group I was studying drove to school alone, though the man I travelled with came from the outer suburbs. The incident with the cyclist was recalled from a lunchtime converstaion with one of the teachers. The line about Vietnam was a hazardous connection, extracted from another conversation at another time. The fantasy about Polish trams was entirely mine. I felt hesitant about including both lines, but in the final draft they remained in because many of those who read the piece said that they should.

The extract from the radio broadcast is very loosely based on an actual broadcast I heard one morning at home. In reconstructing it I drew heavily on a close reading of the city newspapers, which I read from cover to cover throughout the period of the study. The last sentence is pure fiction; only the sigh was real.

To an orthodox researcher all this may sound hair-raising. A 'flagrant transgression of the rules of scholarship', 'more like a page from a bad novel than research', 'merely journalistic', I have been told. In justifying it I would make three points, though I confess that I too have hesitations about validity and legitimacy of the exercise.

First, in an evaluation study it is important to attempt to answer the questions that are being asked, even if inadequately. Often in research a question that seems intractable can be set aside in the pursuit of another question that may lead in quite a different direction. In an evaluation the pursuit of an appropriate truth frequently stands in the way of the pursuit of a line of interest. In this case the brief was widely drawn but specific, it was the case study worker's responsibility to report on the 'concerns and conditions that determined science curriculum issues'. If the study pointed to the wider context of the school, then ways had to be found to report that. An educational researcher might have said, 'That is an area for another expert - historian, sociologist, political scientist, economist or urban geographer'. The evaluator has to do the best he or she can in the circumstances.

Second, the looseness of method implied in the account I have given of how these pages came to be written does not take into account the process of testing applied to the account before it was included in the case study. When the piece was merely an idea in my head and a few scribbled notes on a page, I made a point of raising the topics it was to contain with a number of people in the school. I'd make a point of listening to the teachers first thing in the morning when they arrived in school, sometimes quizzing them about what they thought and felt as they left home and drove to school. I asked visitors to the school (who were many) about their first impressions and later I distributed the final draft of the whole study to all those I had interviewed (inside the school and elsewhere) and to others to whom I hadn't spoken and asked them (amongst other things) how they reacted to this first page.

The design of the project included a three-day visit by a site visit team as a built-in check on the case study worker and a member of the project team who kept more frequent contact (in this case Terry Denny). I asked each of them for their comments on this introductory piece and I relied on their judgement in assessing its relevance, accuracy and appropriateness.

Third, I confess I intentionally used the style of this first page as a shock tactic. I wanted to engage the interest and curiosity of the reader, not just the administrator in the

NSF, but the teachers in the school, their students and parents[3]. I wanted the study to be accessible to non-technical readers and in this sense the accusation that the piece is 'journalistic' is one that I would readily accept.

'Looking at' and 'looking for'

> In our orchid hunting . . .the thrill for me was in finding the rare ones . . . His heaven was a wet meadow full of dull old Dactylorchids: counting and measuring and noting down the degree of hybridisation. I wanted to find the flowers, he wanted to establish some new sub-species. I lived (and hid) poetic moments; he lived Druce and Godfrey.
>
> John Fowles
> *Daniel Martin (p. 76)*

On reflection what is at stake here is not simply different forms of reporting common observations, but different ways of observing. When we 'look at', we are likely to take pre-established categories for granted (certainly on trust), to accept questions as given and to focus on fuilling-in the boxes in some pre-ordinate plan When we 'look for' we appear to be less systematic in our methods and approach, and to find significance in contexts, idiosyncracies and particularities.

I first realised this in working with tapes and transcripts of long unstructured interviews. Often I would come away from interviews excited at some insight that had come to light during the interview, only to be puzzled that it failed to appear in the transcript. At first I put this down to my own fallibility and marvelled at the power of self-delusion, but occasionally I would send back to people my impressions and summaries of interviews as well as full transcripts. Suprisingly, many people found my fallible memory a better record than that of the transcript. Later I read in an account of an interview with Karsh, the famous portrait photographer that when the interviewers asked him if they could record the interview he refused. 'No, I don't want to be recorded', he objected. 'You must take down what I say. I will speak very slowly. I have been misqoted, my words taken out of context too many times . . ' (Danziger & Conrad 1977, p. 98).

There is a world of difference between what we say and what we mean to one another. The tape recorder is too literal; it captures the words but not the meanings. It is primarily a way of 'looking at', but may even get in the way of 'looking for'. As such transcripts are ideally suited to an archive or case record but do not in themselves constitute

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[3]Later I asked the NSF project officer for her colleagues' reactions. 'Some were engaged', she said, 'and others enraged'.

narrative. They provide evidence but the locus of meaning lies elsewhere, for to achieve meaning requires the intervention of subjectivity.

Story telling

Once we stress the pursuit of meaning ('looking for') as opposed to passive observation, it is logical to think about reconstruction, not just at the level of conversation, but at the level of accounts.

'Story telling' as an approach to evaluation and research has been advocated by Terry Denny (1978). The point of a story is that although it only 'attempts to communicate the general spirit of things . . .need not test theory, need not be complete; and need not be robust in either time or depth' (Denny 1978, p. 2), it does, nevertheless, provide a structure. The narrative line carries thoughts from one piece of evidence to another and creates a sense of connectedness. Nothing is perceived in isolation. There is always a context, even if that context is apparently random. The writing of a story capitalises on this fact; it is essentially cumulative - the bits interconnect and interact. The story resist fragmentation. The sum of the parts is never the whole. Doris Lessing makes the point neatly:

> The trouble with this story is that it is written in terms of the laws of the dissolution of the relationship between Paul and Ella. I don't see any other way to write it. As soon as one has lived through something it falls into a pattern . . . That is why all this is untrue. Because while living through something one doesn't think like that at all . . . Literature is analysis after the event.
>
> Doris Lessing
> *The Golden Notebooks p. 231*

A story sets limits and controls the selection of those things which the writer lets the reader see, in this sense a story is analagous to a theory, though it can only be tested through the experience of the reader.

Seen in this context, the problem of narrative description lies in the selections (and the processes of selection) made by the writer. From the writer's point of view, what is difficult is not collecting information, so much as in losing it, for meaning does not simply fall out of information, it needs to be looked for. Albert Einstein is said to have said that the most remarkable capacity of the human brain is its ability selectively to forget. Terry Denny opens his paper with a plea for the development of story telling as 'a first step in educational research', and closes it with a powerful argument for doing so, but he tells us little about how to do it. Most of what he writes is about *collecting* information, about looking *at* rather than looking *for*. The same can be said about almost every text on qualitative research methods. There is very rarely any advice on how to decide what to neglect or ignore, on how to lose information in order to make sense.

Involving the subject as reader

The extract from the Boston case study provides an example of an attempt to provide an 'emic' description, a description by an outsider of what it is like to be an insider. Often though, the researcher is driven to such accounts, not to convey an image to an external audience, but to involve the subject in the process of research. The next example is from a study of the work of local authority advisers, it was written from my research notes as an article for the *Times Educational Supplement*, the aim being to interest inspectors and advisers in the research:

The back seat of Mr. Hurn's car is a mobile office; files, correspondence, a copy of the HMP's report *Curriculum 11-16*, computer printouts giving test scores on Primary School children in the county, a tape recorder and cassette tapes (so he can dictate and record while he drives).

As the General Adviser to nearly sixty schools in a rural area, he spends a good part of each day in the car, perhaps more than most, because he sees being in schools, and being seen in schools, as the most important part of his job, and that means time spent travelling.

One week we added up the hours. Seven hours were spent in the office, another seven in the Teachers' Centre, eighteen in schools (14 visits) and eight hours travelling. In some ways the week was atypical because the hours were low, but spot checks on other weeks showed that the number of visits to schools and the proportions of travel time to school time to office time were surprisingly constant. The car has to become an office, because he cannot avoid spending time in it.

Mr. Hurn drives up to the school, a Primary School well thought of by parents and apparently without major educational problems. He gets out of the car, taking his coat off as he does so: *'If you go into school with your coat on it emphasises that you are an outsider. Finding a place to hang your coat creates a distance and underlines the fact that you are visiting. I like to get straight into the school and for people to feel I belong there.'*

As we go in, he says hello to the secretary, calling her by her first name and asking how her son is getting on at university (he started this term). It is lunch time. The Head isn't in his office but is somewhere around the school.

Mr. Hurn continues chatting to the secretary, but listens also to the noise level (and as he puts it, the 'kind of noise') coming from the hallways. Later he says to me:

'I felt there was something wrong. I couldn't put my finger on it, it was serveral small things added up - the way the children ran through the entrance when we came in (I hadn't noticed them), the kind of noise level, the fact that the Head wasn't in his office at lunch time, the fact that the secretary seemed on edge. I thought to

myself, there's something not quite right, I need to keep my eye on this . . .'

'Isn't it dangerous', I asked, *'making judgements about schools on such slender evidence?' 'The important thing is not to be taken in by these impressions, but not to forget them'*, Mr. Hurn says, *'An adviser learns to disbelieve everything he is told, or observes, until the last possible moment - to disbelieve it, but remember it. Store it away until you can cross check it with something else.*

'Never rush to judgements - I'm less sure now than ever I was as a teacher, or even as a head, that I know the best way of doing things. You have to learn to fit the pieces of the story together, patiently, and deviously - for instance you often act as though you don't know what someone is telling you, even though you have heard the same story several times.

It is justifiable because our job is to know the schools, and to act to forestall problems. When we are successful there is no sign we have done anything; our job is to enable others, to seem invisible. Even when we are taunted by teachers - you know, 'failed teachers', 'Kings of the Lay-by' and such like . . .'

For the past two years, and with the help of a grant from the SSRC, I have been making a close study of the ways in which a number of advisers work. Typically, advisers claim to 'know' their schools and to 'know' what is going on in classrooms.. I have been trying to find out more about that knowledge.

What kinds of information seem significant? How is it collected, processed and recorded? What problems arise in establishing the reliability and validity of the information? But above all I have asked myself the question, 'What do advisers do?', not because of a desire to press for judgement, but out of curiosity and the feeling that there is a need for description.

The most informative technique has been to spend days or half-days with advisers visiting schools, recorded either descriptively of occasionally on video-tape or film. These records have usually been followed by interviews that have focused on particular issues or points of interpretation.

Having developed quite a close understanding of the work of a few selected advisers I wonder about the generalisability of the picture that emerges. The job of adviser, or inspector, varies from person to person and LEA to LEA, and not always in ways accounted for by different occupational labels.

I am looking for advisers who would be interested in writing accounts of aspects of their work, and perhaps letting me observe them at work, or talking to me about the ways in which they observe schools and classrooms.

In this way I hope to fill out the picture I have so far. In exchange I can offer to supply a portrayal of the adviser-at-work, and will promise anonymity and the right to control the use I make of the information.

> If you are, have been, or are shortly to become an adviser, and you'd be interested in helping me, I'd be glad to hear from you. If you are a teacher, pupil, head teacher, laboratory technician or parent, and you have had contacts with advisers, or thoughts about the way they work, I'd be glad to hear from you too.
>
> (Walker 1979)

This account is 'fictional' in the same way that the introduction to the Boston school case study is fictional. Mr Hurn does not exist, he is a synthesis of people observed at various times during the course of the research study that is reported more fully in the next chapter. In part the use of fiction here is as a means of disguise, a means of dealing with the problem of describing events that demand close reporting while preserving anonymity for those directly involved.

There are dangers in the approach. Can fiction ever be as 'good' as reality? What are the limits on the uses of fiction? Mr Hurn is a portrayal of a man but some the incidents used to assemble the account involved women inspectors. Is this violation of the truth acceptable? Just how far can the data be altered, distorted or changed? Should the story emerge from the data (as in the examples I have given), or should the story control the use made of the research (as a novel writer might claim)?

The balance of authority between writer and subject is one test. In 'real' fiction, it is the writer who is centre stage, whereas research requires a documentary art. The real power of the use of fiction, as I have described it, is that it really changes the truth very little, certainly less than it presumes to.

Chapter Seven

ADVISERS AS RESEARCHERS

In the previous chapter I discussed some of the problems that are created as the researcher moves from 'etic' to 'emic' forms of description. This chapter considers an example, taking the study of the observational work of senior inspectors and advisers as a case, and showing how an emphasis on 'emic' description leads progressively to a view of research that is essentially collaborative.

This case is included here for three reasons. One reason for choosing to study inspectors and advisers is that they were people who were very influential in the development and implementation of Nuffield Science. However, at the time of this study (1977-9 and again in 1987) this role had been progressively eroded and advisers found themselves, more and more, acting in general inspectorial roles. Nevertheless, the case studies reported earlier in this thesis have shown that what happens inside the classroom is crucially dependent on what happens outside. The focus on advisers in this chapter seeks to extend this understanding by locating the classroom and the school in a broader organisational context.

The second reason for including this case study concerns the nature of fieldwork relationships when studying 'up' rather than 'down'. The data reported here derive from a study of people in more senior and influential positions than the researcher, unlike most classroom studies where the relationship is at best one between peers. This lead to the third reason for including this study at this point in the thesis, for in the studies reported so far the interpretive role of the researcher figures as increasingly important. In this study not only is the researcher written in to the text in a similar way to some of the other studies, but those under scrutiny, the advisers and inspectors who are the subjects of the research, regularly play similar roles.

This project reported here was designed to study the ways in which inspectors and advisers build up pictures of the schools in their areas; to consider the opportunities they have for observation, the observational problems they face, and the ways in which they process information. It was conceived as a study of advisers as researchers.

The original study (carried out in 1977-9) was centred on a continuous two-year study of the advisory team in one local authority, but also involved parallel studies in other LEA's. The aim of the study was to develop a descriptive account which managed to see the role of the adviser which included a subjective element within a descriptive account. This study was followed up in 1987, when I spent six months with the same advisory

team and with advisers in another authority where one of my first 'subjects' was then deputy chief education officer. Only parts of both studies are used here in order to explore the methodological issues that are central to the thesis.

Portrayal of the adviser at work: A ten-minute visit to a middle school

This account is taken from a whole day spent with Colin, one of the general advisers. The visit took place soon after school started in the morning. Colin calling in to give the head some applications he had received for a job vacancy at the school. The visit is described here in terms of the different significances it has for Colin. It is not an unusual visit, in fact it is highly routine, but describing it in this way reveals something of the way advisers think about school visits, and the kinds of meanings they are able to derive from even slight contact.

What is the purpose of the visit?

The school has a vacancy for a maths teacher, but behind the task of filling this vacancy there is a further complication. The head is a keen linguist, speaks fluent german and has encouraged the development of a thriving language department in the school. He is, however, concerned that the head of languages may be leaving and is therefore anxious to support the department.

Colin, the general adviser, feels that although there is a serious weakness in the maths department, the head may have pre-empted the decision about who to appoint since he learnt that one of the applicants for the maths post could also offer modern languages. He is anxious to keep the decision about the maths post open in order to assess the candidates more fully.

'It's a golden rule if you like. One of the aims of the adviser in situations like this is always to persuade the head not to take a narrow view, and not to appoint from expediency.' The fact that he sees it as a 'golden rule' suggests that it is a common occurrence. Colin readily agrees:

'It can become a little bit of a game with some heads, in that they will drop hints and fairly strongly try to suggest who they want to appoint even before you get to go through the papers very carefully.'

The adviser may have several reasons for wanting to delay pre-emptive selection by the head. It might be seen as unfair to the other candidates (and if word got round that a choice had been made before the interview it could cause acute embarrassment to the authority). It might also be part of a strategy of persuasion by the adviser to make some changes - an attempt to move the head towards a new approach to the curriculum or organisation of the school by persuading him to consider appointing someone who had new ideas to offer.

In this case Colin's predominant concern is with the consequences of the appointment for the balance of the curriculum. He feels that because of his enthusiasm for modern languages (an enthusiasm that

extends to school visits and exchanges as well as simple language teaching), the head may be in danger of acting with the interests of language teaching at heart, and may overlook the maths department. Colin could see the case that the head seemed to be making, and admired the work that had been done in languages. (In fact he had spent several months in one teacher's class in order to learn more about modern methods of french teaching). Nevertheless, his own feeling was that, 'In making this appointment the highest priority was in mathematics.'

From the adviser's point of view the main reason for the visit was therefore to continue to exert some pressure on the Head to consider all the candidates and to keep an open mind about who to appoint. Before leaving the area office he had talked to the head on the 'phone for about ten minutes, and in the course of the conversation had suggested the head consider the files of one or two teachers from whom the authority had received applications. The immediate reason for the visit was therefore to deliver these files to the head.

Question: Why visit the school? Why not simply put the files in the mail?

When I asked Colin how he justified making a visit for what, on the surface was a routine task, he made several points in reply:

First he felt it was important at this stage to encounter the head directly, however briefly, to emphasise the line he had taken on the telephone half an hour previously, when he had tried to persuade the head not to pre-empt the appointment decision. Perhaps there were two points here: first it was important to meet the head in person ('A face- to-face situation is more direct and more likely to be effective'). Second, the visit had to be made as soon as possible, soon after the 'phone call and before the head reached a point where it would be difficult to extricate himself from a pre-empted decision.

(It is interesting to note that where the administrator's response to a 'phone call is to get something on paper by writing a letter or a memo, the adviser's response is to make social contact.)

Second, the school was in the direction Colin was travelling to an appointment at another school. 'It didn't cost the authority anything, I was going that way anyway. I wouldn't have gone there if it had been in the opposite direction.'

Third, Colin felt my question was strange in that he felt he needed no excuses to visit a school. 'I never waste an opportunity to visit a school. It may appear a waste of time but it isn't. The more frequently I can visit, even for five minutes, the better.' In addition, Colin likes making brief visits to schools. In an area that includes over 100 schools it allows him to cover the ground more thoroughly. He often finds short visits productive: 'You always come away with something you didn't expect to find' and, as important, it allows him to be seen by teachers, heads, school secretaries and even pupils. Visiting a school, for whatever reason, he feels more comfortable, more that he is doing something, than he does sitting in the office.

What considerations did he have in mind during the visit?

The agenda for a visit is almost always polyfaceted and complex. Behind the immediate concern we have considered so far, there may be many other things on the adviser's mind.

In this case Colin's immediate concern was to try and influence the Head over the appointment decision, but he went into the school with other thoughts on his mind too.

'It's a dangerous situation. The way the bus stops outside that school. Being there first thing in the morning and seeing it again adds another bit of information to the pattern. I'm very conscious you see that that school is very dangerous in the morning. There's not a lot I can do about it at the moment but it is dangerous and I don't like it. There's something physical about it and that worries me . . . . '

Meeting the head face-to-face is a contact that involves other social calculations and strategies that are not readily apparent. Colin explains:

'There's a constant attempt to try and make that head feel more relaxed. He's a bit formal, and not the sort of man that you can go in and say, 'This is Rob Walker, he's a mate of mine, bla, bla, bla.' He likes to go through the motions. I was torn both ways on that (whether to take the observer into the school), but I thought it better in the end that you came in, because it give another apportunity to try and made him relax. To try and get him to see that you'll drop in with something, that you'll being someone . . . . He's always inclined to be at the door. (His office is right by the main entrance). It's almost a defensive mechanism - he's terribly protective of the whole of the entrance to the school. I want to try and get him to feel that he doesn't have to stand there and act as sergeant major. You see, I know many of the other teachers. I spend quite a lot of time in the school, and the other teachers are more relaxed about me than he is. And the secretary, I wave to the secretary nearly every morning

. . . . I want to try and get him to see that me being there doesn't have to be a threatening thing . . . . '

The head's style is something of a puzzle to the adviser because it seems to him that there is a lack of conguence between the head's style and what he sees happening in the school. The head he sees as 'hovering, tense, too formal in his relationships with the advisers', yet 'there's a lot of good things going on in the school, a lot of nice young teachers with easy, relaxed feelings'.

He finds it puzzling that the head 'appears to have a nice school with a lot of nice things going on, and yet he doesn't actually want to get down to talking about the practicalities. He won't for instance, welcome talk about the aims of education'. What puzzles him particularly is the loyalty which the staff seem to feel towards the head:

'It's an enigma that school because it is good in many ways, despite the head. And yet I don't believe that he can't have some magic that is working - but I can't put my finger on it. He hasn't got any magic for me, but for some of those teachers he must have.

What's happening isn't just happening by accident. I think a lot of it is probably because of him, yet I can't see it.'

Having reached a point that seems genuinely problematic to the adviser I asked him to give me his view of the school.

'The head is extremely threatened by the high school, and the heads of department are worried too. The head is thoroughly worried in case anyone should suggest that his children hadn't reached a good standard, especially in maths and the traditional subjects. Although they do drama and music and things like that his main concern it seems to me, is for the brighter children. I found, for instance, that he was having the only real maths teacher in the school teach 15 kids in a special top set and the other children weren't really meeting him at all.

It seems to me that that is terribly elitist, but in many ways it satisfies the demands of the high School. What's more they'll use the textbook the high schools says, get through the chapters the high school says, and even the slightest breath of criticism from the high school and they're terribly worried about it. They're not really prepared to have their own philosophy and stand up to people.'

Perhaps the sense of a threat from outside (from the high school) is what creates cohesion within the school:

'For the truth is that the teachers are very loyal to the head. I think they think a lot of him, partly because the things he wants are the things they want, but also because they feel protective towards him. A lot of them do think a great deal of him.'

The adviser's view is that while this is a situation of some stability, it is inherently a situation in which some potential remains frozen.

'There's a lot of potential here. A lot that isn't happening.'

Yet he has to admit that the school is, and is seen by parents, as being 'safe' and 'satisfactory'; perhaps the 'best buy' among middle schools in the town. ('I have to admit my children aren't there by accident.')

In conclusion, the visit was brief (less than 10 minutes). We didn't get any further into the school than the main entrance hall but as the adviser said:

> 'That visit was about lots of things, in fact you find it hard to think it all through at times. I like to make quick casual visits to lots of schools as well as making major visits when there is something important going on. I like the teachers to feel that I am going to drop in. That I'm not being a spy, yet my tentacles are out; not in a nasty critical way, but because I want to get the feel of the school.'

Further thoughts: Informality, information and influence

Perhaps the first qualifying statement that needs to be made about the relationship of the head to the adviser stems from the fact that their relationship is made up of a number

of social fragments within which the relationship may be differently expressed. For instance, the adviser and the head may meet on an in-service course where the adviser, having been a successful head him or herself is seen as being one step up the authority hierarchy, a status marked by a higher salary, relative closeness to the 'Office' (the C.E.O. and his deputies) and to the day to day running of the local system. Perhaps above all the adviser has a hand (albeit a limited one) in the appointment of heads.

So although the adviser lacks formal authority over heads, in many critical areas he or she is in a powerful position to influence them. Not least because the formal workings of the authority are often obscure and distant from the schools, and the fact that advisers usually know what is happening in the central and area offices before the heads give them an edge when they visit the schools.

One consequence of the fact that the ability of the adviser to influence the head depends on differential access to recent information, is that the nature of the relationship varies considerably from one individual to another. Some heads are less in awe of the adviser because they have independent access to the same sources of information. This is especially true of those heads who are active in the teacher unions or in local government, but in the rural areas it may also be true of those who count as their patrons powerful landowners with a direct route into the higher reaches of local politics.

The power to influence, as opposed to the exercise of authority, is critically dependent on the ability to marshal intelligence - to be able to pick up the flow of gossip, intrigue and information before anyone else. When the two general advisers meet in the office the dominant mode of their initial conversations are 'Have you heard about . . . ?' 'Have you seen this . . . ?', 'Has Mr . . . 'phoned you yet?' They have a natural hunger for information, information they store and constantly update. Some of this information is relatively routine - which headships are becoming vacant, who has applied or been appointed to others, and it forms a continuous backcloth to the job. Most advisory team meetings begin with a simple updating of this information. Other concerns come and go and provide a set of over- shadowing issues which impinge on the day-to-day work of the adviser over a period of time, sharpening perceptions of some things, perhaps limiting others.

An orientation to school visits

The fact that the advisers are not clearly located in the hierarchal structure of the LEA. that their function is to advise not to command, infuses an ambiguity into their routine interaction with schools. One of the first things to note is that Colin always tries to make some direct contact with pupils:

> 'If I can I find a way of getting in touch with the kids, either at lunch, or in some other way. It happened yesterday that I was with a head and two little boys came in to see him. On my previous visit they were on the table where we had lunch and I had talked to them so I remembered them.'

Advisers, it would seem, have to cultivate a memory for faces and names. ('Even if you can't remember their names you remember their face well enough to say hello'). Colin believes you can train yourself to remember people in this way, and that he has consciously worked to improve her own memory.

It would though be misleading to emphasise an encyclopedic memory for human detail as the key element in the process. Before casual contacts become memorable they have to be significant. The following incident emerged during a day spent with Eve, an adviser in a northern metropolitan LEA on a visit to a school she had never visited before:

> We are ushered into the building while the teacher takes the girls outside. As they file past Eve stops one, a small, fair girl carrying a skirt she is making. Eve asks about it and the girl answere questions about how it is made. It is only later that Eve explains to me that she had seen the girl showing her work to the Head before we talked to him in his office. I hadn't even noticed the girl. Eve saw her, remembered her, picked her out from a class as they walked by, took the opportunity to talk to her and sustained the encounter.

Interestingly, Eve adopted the strategy of not simply noticing and remembering fine detail, but of being memorable herself. She set out to create an impression from the first moment of contact, an aspiration highlighted by her use of hats. In my account of a day spent with her I noted:

> Eve drives her up to the dining block, mistaking it for the office. As she gets out of the car she puts on a fine, wide-brimmed white hat. She comments: 'I'm a hat lady. I've got a passion for hats. But it's also a gimmick. Half the heads in the city wouldn't recognise me without a hat. It's something I learnt from a marvellous woman I worked with in Africa who was a real Queen Mum figure.' (She catches me scribbling a note and giggles: 'Your're not writing this down I hope.').

Perhaps because of Eve's comment I included some questions about her hats in a letter I wrote to her later. I asked

> 'As she leaves the house in the morning, what circumstances and criteria does Eve use in choosing a hat? Are there different hats for different people? Different events? Different seasons? Different

weather? To complement different clothes? Does she ever take more than one, and change it in the car?

She replied:

> 'Yes, Yes, Yes, Yes, Yes. I often have more than one hat in the car and this also applies to shoes, coats and gloves: Living as I do out of town I often have to plan for evening events requiring different outfits'.

I was concerned Eve might think I was joking. So I asked:

> 'The previous question seems, on reflection, less trivial than I first imagined. Am I right?'

Eve replied:

> 'Certainly you are right. If I feel suitably attired for the occasion I can do a more competent job and feel more comfortable. I consider this to be part of my job'.

Colin, however, prefers to express his person and his attitude to the school through more direct participation. During one visit to a secondary school he took time off to play table tennis with one of the pupils, an action he felt spoke for itself in a number of ways:

> 'It does away with the image, because staff and kids see it happening. It expresses my feeling that [being an adviser] is about informality and trust. Playing table tennis shows a lot of things symbolically without having to say them. It shows interest in children. It shows caring. It shows politeness. It shows thanks, and it demonstrates this in the space of ten minutes or quarter of an hour. Besides which, I enjoy it'.

Colin enjoys visits to schools where such contact is possible, though he notes that 'sometimes heads will want to talk to you, and shut you off from the kids' and that in some high schools especially it might make the head very uneasy.

Informality makes the adviser's life easier, finding him or herself relatively isolated by status it provides a means by which formal roles can be short circuited through social channels. The danger is that once the relationship between the adviser and his or her clients is realised predominantly through social channels, then their power to influence may weaken. Alan recalls the experience of becoming particularly close to the staff of one school as a result of being there and teaching extensively. 'I became too close to be able to help them. Once I lost the ability to distance myself from them I found I could no

longer be an effective adviser'. Informality makes relationships easier but weakens the power to influence and advise, or perhaps even the ability to listen impartially.

Alan's case was extreme as both he and Colin recognised, but is there any sense in which informality weakens the adviser's role in a less obvious manner? I asked Colin. Colin's first answer is that, given the delicate balance of authority between the adviser and the head, informality makes it possible to include in the relationship areas that might otherwise be excluded, and perhaps to press points harder than a strictly formal relationship might allow.

In relation to a visit to a particular secondary school this came out clearly. Colin visited the school at the request of the head to talk about a paper Colin had written about disruptive pupils. He had already run a course on pastoral care at the school which 'showed the head as being somewhat protective' about the area. As a secondary modern head about to enter reorganisation Colin saw him as 'a pretty good bloke who is not too strong on curriculum and therefore wanting to hold on to the pastoral side, recognising that this was where his strength lay'. In this situation Colin was clear in his own mind about the difficulties that arose from informality:

> 'He's the sort of man that one has got to work at, in a sense. He's welcoming, but it can be a very non-event visit. It can be a brief chat about the City football team and away you go'.

Colin felt the need to extend the area of contact, and used informality to that end:

> 'I feel one has got to progress beyond that, and get some thought into it, not necessarily action, but something a bit deeper than just coming round to say you're a nice bloke'.

Informality though is not just a professional device. Colin points out that is genuine liking for the head that makes this strategy possible.

> 'I'm prepared to press him a bit because I respect him. I like him; he's direct; I think you know where you are with him'.

It is important to point out that these things are rarely only personal, they are also institutional. ('The head needs pressing because the school does too'.)

Neutrality in critical areas

On routine school visits there is almost always some feeling of the adviser as a guest in the school. (In my experience this is quite different to schools in the U.S.A., where any

visitor from the 'downtown' office' is much more likely to be treated as the landlord rather than as a guest). Colin seemed conscious of this feeling, since part of his routine in parting his car outside a school includes taking off his coat and gloves and leaving them in the car:

> 'It makes you less of a stranger - being able to go in the door and not having to go through the ritual of finding somewhere to hang up your hat and coat.'

For Alan and Colin the guest role extends into often taking a neutral role when controversial issues emerge during a visit. This may be when they are asked for, not just advice but for recommendations. For instance during the period of the study one of the high schools asked Colin for advice about the organisation of a pastoral system. Should they have houses or year groups? Colin felt it was his task to elaborate the alternatives and to point out any clear difficulties that might arise from particular plans. There was some feeling from the school that they wanted Colin to make a judgement and indicate which system he thought was best. His view, however, was that the question of judgement was their responsibility, not his, and he should resist such pressures and delay indicating his own preferences for as long as possible.

In other situations, where his own values are clear, the adviser will often resist a course of expression or argument that others may create for him. For example, during a visit to a secondary school, Colin and the head found themselves discussing corporal punishment. Up to this point the head had shown a very perceptive and caring attitude towards the pupils, then, in discussing a particular pupil, he explained how he had caned him with the intention of 'really making sure I hurt him'. His explanation was in terms of a 'short, sharp, shock'. He said he felt this particular boy could develop into a problem for him in later years, and by establishing himself in control early on he had a better chance of steering him away from trouble. The intention was to create a memorable act of punishment which would be a deterrent to the boy ('I intended to mark him early'), and at the same time to establish himself in a clear authority relationship to the boy, as it were, for future reference. So far he claimed, his strategy seemed to have worked on both counts. The boy had stayed out of trouble and had apparently been much straighter in his relationship with the head.

As an observer of the scene I expected Colin to raise some objection to this account and its rationale. He didn't, and I asked him afterwards why he hadn't. First he confirmed his immediate response:

> At this point I found it very, very hard to remain cool, because I was screaming from the rooftops really.

Why didn't he say anything?

> Because I could really get cross and that wouldn't have done any good. He probably wouldn't want to see me again. We'd have come away feeling I'd ruined it. But I was very, very put out by what he said. Yet I asked myself, why should I be? I just felt that the whole idea of hurting that boy early, in a way he wouldn't forget, was quite unacceptable.

From the adviser's point of view confrontation with a head on a particular issue is generally to be avoided in favour of retaining a relationship of some mutual trust. Even though, on the adviser's side, this may mean swallowing hard in particular situations. Nevertheless I asked, couldn't Colin have indicated how he felt without losing his temper. As it was the head might take his silence as indicating agreement or acceptance.

Colin felt, first, that his own attitudes were well known and that although he didn't think (in this particular case) that the head was deliberately manoeuvring him into a position of confrontation, the head would have known how he felt about the issue. Second, although Colin makes no secret of the fact that he 'strongly opposes corporal punishment', he feels this is part of his philosophy and he is not in a position to make policy for this particular school ('It's not for me to direct their system or sanctions').

It would be possible to go on elaborating the ground rules of interaction in this way, but we seem to have reached the point, in examining this instance, where the rules run out. For the 'rules' (and they are mostly unstated, and certainly unwritten) only provide the adviser with the elements of strategy. There comes a point in each encounter when broad points of procedure give way to judgements of the social and personal contexts within which particular encounters occur. Colin picks up the point in relation to this incident. Explaining why he felt reluctant to engage the head on the issue of corporal punishment he turned to consider the nature of the encounter itself:

> It was such a very open and, I don't know, deep thing that it couldn't have been done in that way (by a more subtle and low-key approach). I think it would still have caused quite a big confrontation. Because I simply couldn't have said, 'I'm not happy about corporal punishment'. There was something .... I felt rather more sinister than that; there was this nasty comment about hurting the boy early enough .... It was so out of character (for the head) that I felt perhaps I shouldn't accept it for what it was. 'He doesn't really mean it' I said to myself, so I let it go.

It is important to emphasise that retelling the incident in this way distorts it in terms of time. In fact it was one brief incident in a lengthy conversation. It may not have been as

critical as I have made it seem (though for Colin too it was one incident that remained in his mind some time afterwards). Still at the time he had to think fast if he was to respond:

> I'm not always very good at thinking on the spur of the moment. If I'm not sure, I'd rather let it go than jump in. I was annoyed by it. I was very put out by it, but I like the head you see. I think basically he is a good bloke and he cares. I just wish he hadn't done that . . . . .

Looking at the incident in detail inevitably shortens the time scale of our vision. Colin will meet the head on critical issues again.

Colin responds

Colin, one of the advisers who was a subject of the study made a series of important points in responding to an earlier draft. I have taken account of some of these points in this version, but much of his critique remains relevant and is included here.

> I think our focus is more on the classroom than you suggest. Perhaps it would be more accurate to say I <u>hope</u> our focus is on classrooms. If you are right then it makes me feel uncomfortable.
>
> Certainly there are all kinds of constraints and pressures that keep you out of the classroom. I spent the other day in a large comprehensive and both the head and I wanted to get round the school to look at what was going on, but the pressure of business was so great that though I spent two or three hours in the school, we didn't get out of his office.
>
> Perhaps you have got a picture of us not being in classrooms because of the things you have seen, but I do make an effort to teach, and this is important to me both in the sense of giving me some credibility with the teachers, and because it keeps me in touch with the feeling of being a teacher. If you lose those things I think you might as well give up trying to be an adviser. Also I spend a lot of time with probationary teachers, and that does not really figure in your report.
>
> Maybe you have got that picture too from looking at Tony. He does spend less time in classrooms than I do, partly because (as the senior adviser) he has more paperwork, but also because most of his schools are primary schools. Where I can go to one secondary school and choose to see 30 classrooms, Tony has 3 or 4 available and then he has to get in his car and drive off to the next school. It's inevitable that he has to spend more time travelling.
>
> Finally, I think I'd say that though you may see us as working for the school, I would say that I only do so when there is a direct effect on the classroom. Often I have to work through the head, because it is the head who takes the critical decisions, but because my <u>time</u> is spent with the head doesn't mean that my <u>focus</u> isn't on the classroom.

Discussion on these points raised as important and intriguing theme; the significance for the adviser of excellent teachers. Colin feels strongly that he needs to keep in touch with the best teaching in his area, partly to counteract the perspective he might develop if he only saw the problems and difficulties: 'Just as policemen develop a jaundiced view of society because they only see bad people, so I need to see good practitioners in the classroom to maintain my own standards of excellence.' Colin feels this need is constant rather than occasional, and that it demands a considerable investment of time. He feels he cannot judge high quality teaching instantly, first impressions maybe wrong or misleading. It takes time to identify good teaching, and involves a considerable amount of cross-checking. He will certainly take account of what he sees in the classroom, but he'll also take note of what the teacher might say, in in-service meetings for instance. An important criterion of excellence, in his view, is what he calls 'philosophy', by which he means the personal philosophy of the teacher, their ability to account for their actions and strategies.

He also checks with others, he'll note what children in the school say about the teacher, he'll listen to what the head says. But this is done quietly and unobtrusively; some of the teachers he considers 'excellent' will know he has identified them - but others probably will not. He'll check too with Tony in order to get a degree of independent judgement. Again this appears as an informal process, it is not a question of keeping a list of excellent teachers, but a process submerged and implicit in the day-to-day routine.

What does he look for in the classroom? 'Relationships' is his key word. Unless the teacher has good relationships with pupils and perhaps other staff Colin would not consider them excellent. It is the prime and necessary condition, but it may not be sufficient, he'd look too for 'philosophy' - 'which may not be articulated, it may be instinct - a constant striving to get things right'. He is aware that, in the secondary school especially, there is a danger 'of stopping at relationships'.

Good relationships can offer such a challenge that, once achieved they become an end rather than a means to an end. On the other hand, brilliant exposition without good relationships would not constitute excellence.

Colin is not complacent about his ability to judge excellence, it is not something that he can pre-specify and closely define. He recognises it when he sees it, but feels he cannot take this ability for granted. An important reason for observing excellent teaching is to hone his judgement, he feels he loses it if he spends too long away from classrooms, or indeed from teaching himself.

Elsewhere I have said, rather glibly, that the adviser's function is to maintain educational quality in the system. Colin agrees, and sees the administration as often making sweeping judgements on flimsy evidence: 'They have some idea of what good mixed-ability teaching is that bears no resemlance to the facts'. What I hadn't realised is that to maintain standards of excellence means constantly watching teachers, and perhaps teaching yourself. If you lose that contact Colin feels, your criteria of excellence become labels and slogans and translate into dogma - and this can be as true of the 'integrated day' and 'resource based learning' as of any other abstracted concept.

Translated into the language of research I think this means that Colin is making the claim for what researchers call 'grounded theory' (after Glaser & Strauss). Concepts and categories (and in his case, judgements) have to emerge from contact with events. But where researchers may be content, once having generated theory, not to return to the field, Colin feels that judgement needs to be continually reground in experience. Research may be aimed at some crystallised, and necessarily static conception or explanation of events: practice, on the other hand demands a continual dynamic.

There are of course other reasons for wanting to keep some feel on the pulse of classroom excellence. It provides sources of ideas for in-service courses, it helps identify people who may be promoted in the system, and Colin claims it operates as a way of giving praise and maintaining morale: 'It's important to thank people who are doing a good job in the classroom. It's something good heads will do anyway, but it does no harm for us to say thank you too'.

Ray Bolam, in his report on the work of advisers notes that there is a tendency to develop special relationships with particular schools.

Colin also felt I had understressed the significance of in-service education.

> In-service education is important for a number of reasons. Again I come back to 'relationships'. In-service courses allow us to develop relationships with teachers on more neutral ground - well certainly it is on ground different to that when we visit their schools. It also gives them some contact with each other. One of the things that pleases us most is when, following a course we've run, the group keep meeting in their own time perhaps just to maintain the contact with each other, but also to hang on to some idea or interest that has developed.
>
> In-service education is also important for our credibility. Running courses is one time when we are really put on the spot in front of large groups of people. If we did it badly our credibility would fall to zero. We have to do it well, we put a lot of effort into it, it is

important to us to get it right, and we often get nervous about it before a big course.

It is also satisfying in a way because it is one of the few tangible thing we do. We can see the response; we can tell if it is going well or going badly. We generally know what we can do to improve it next time. Also it's an opportunity to work closely together in what, let's face it, is often a lonely job.

It is important to us too because through in-service courses we can reach a lot of people quickly and we can publicise our view of the role of the adviser, both directly and indirectly through the way we put the course together and through the way we act. We worry a lot about the unintended messages we may be conveying, which is why we have recently got independent evaluators to look at our courses. But when it works well we can improve our links with schools and encourage them to take up research and self-evaluation, which is what we believe in.

Colin felt perhaps I had been over-cynical about the advisers motives for giving me access.

> For my part at least the motive was a genuine desire for self-evaluation. I wanted you to make comments on what I was doing - to say if you felt I had misjudged a situation or if you thought I hadn't realised what was going on somewhere. Professional loneliness was motive in that it's an implicit part of the job, and though Tony and I work together much more closely than many advisers, I sometimes feel a desparate need for unbiased comment. Tony's been doing it longer than me, but I admit to times when I've wondered if there's a job to do at all.

He also felt that I had misjudged the importance of informal interaction:

> I think you've understressed the importance of informal links in order to build relationships. People don't like advisers because they don't really know what they do and they are suspicious. If you can develop informal contacts with people it give you a neutral ground on which to meet. That's why I put a big emphasis on knowing people, remembering their names and something about them. Put like that it sounds calculated, but it isn't, I feel I need to know them as people as well as knowing about them in the limited professional sense.

> A critical incident this year involved a dispute between a teacher and one of the subject advisers. Because I knew the people and the situation, because I knew and respected the head, because I knew about the teacher who really caused the incident but who wasn't directly involved, I was able to do something. I went straight in and met with the people concerned. Yes it was embarrassing and uncomfortable at the time, but having done it, the air was clearer and the problem resolved. But I couldn't have done that if I hadn't known the people involved and if the teacher hadn't known me well enough to write to me in the first place.

> So it isn't a case of being matey and people thinking you are a nice chap just to soften the blow, while behind people's backs we do all kinds of devious things. For one thing we wouldn't get away with it, the teachers and the heads would soon catch up with us. No, we work very hard to be consistent and to be fair, but it is also about relationships and people being able to trust you.

Colin felt too I had neglected the importance of writing and talk giving.

> Not simply for publication, but in order to document what we are doing and in order to work out our own philosophy. We think it is important that we try and record as fully and accurately as we can what we do and what we believe.

And his sense of frustration:

> You've under-estimated our sense of frustration - the advice we give, that is not taken . . . . [to the authority].

He idenified a weakness of the ethnographic method, its difficulty in taking account of history:

> Because of the way you have written up the account there is no sense of the depth of knowledge we have about particular schools.
>
> If you were to choose a school on our list, between us we could give a pretty thorough picture of it - the names of the teachers, how many pupils there are, whether the playground is dangerous, what the curriculum looks like, the internal politics of the staffroom, what kind of person the head is, where teachers had come from before . . . . . etc., etc. There is no information in your report on the frequency of visits to schools (even though this is something you have looked at quite closely). There is no mention of the use of the telephone or of the significance we attach to casual meetings.

Colins critical comments on the accounts I had given him based on observations of him at work raised three points that have emerged before, but only briefly. The importance of gossip in updating the memory, the importance of remembering everything but disbelieving it too, and the significance of the 'reliable informant'.

Updating the memory

If Colin is right and the advisers constitute an intelligence unit, then it follows that an important task for them consists of updating their information. Much of what they know is unwritten, certainly the kind of information they have on internal school politics and on individual personalities is of this kind. Some of it is won from experience, but much of it is traded as gossip. When the advisers meet, each is often bursting to tell of several items of information. (Tony's lead story today is of a school, where faced with losing a

teacher, one of the managers has offered to pay her salary). In the way the information is shared it often becomes a game - Tony tells me of a head who refused to allow a teacher to attend a course 'because last time I did that he came back knowing more that me', and then added: 'and I bet you don't know who it was'. Tony and Colin do the same, as if to test, not just powers of recall, but the predictive power of their shared memory.

Disbelief

Disbelief might be thought important because it increases the authority of the adviser - just as teachers may disbelieve the children's excuses for lateness or failing to do their homework in order to exercise power. But in Colin and Tony's terms this seems not to be true; disbelief is for them functions as a stimulus to testing for reliability. Disbelief is used, not as a judgement about relative truth, but as a way of suspending judgement. When they pick up information they almost always, and almost unconsciously turn it back into a question. 'Truth' is not for them a static ideal, but an ever moving horizon never entirely reached. They turn information over with extreme speed; what sticks remains as temporary truth.

Reliable informants

Anthropologists use the term 'reliable informant' to describe the person who can be relied on to give the outsider consistently reliable information from inside the culture. It's not a term the advisers use, but in practice they seem to have adopted a similar set of techniques. Colin and Tony both have mental lists of the people who can be relied upon to give accurate assessments of situations from the inside, just as they know who 'to take with a pinch of salt' or who can be guaranteed to attempt to swing every contingency to his own advantage.

The independence of the advisory service

I wanted to give Colin the last word. He said:

> I believe the advisory service has to be independent, to have its own integrity and to be fearless in stating its view. You make it sound as though we are on the run from the teachers and in the pockets of the authority and keep busy just negotiating a bit of peace and quiet for ourselves. I believe we are paid large salaries to be independent and to give, to the best of our ability, sound educational advice.

I asked:

> But as local government officers, can you really be independent of your employing Authority? What of the education committee member who says 'We can't trust the advice of any officer because they all have vested interests?

Tony replied:

I disagree, that is why we are highly paid; to be independent. We don't hesitate to tell the authority if we think they are doing something stupid (as we did with county-wide testing). Of course they are free to ignore our advice (which they did), but that's the price we have to pay for our independence.

'Does anyone but you really believe in your independence?'

'No I think that's where you are right. What you are reporting is people's perceptions, and of course you can't ignore them, they are very important. The truth is however that we are not bought by the authority. We are free agents within the system.

At this point Tony intervened. He disagreed. He felt it was inevitable that advisers were to some degree bought by the authority if only because to retain some degree of credibility with the administration they had to criticise them as infrequently as possible. It was important to choose carefully which ditch to die in, and this meant compromising on some things that were seen as less important. He also felt that advisers became their own interest group, defending their own values, and their own piece of ground, and so could not be purely independent. His view is clearly much more one of continually negotiated truces that of absolute separation of function. He quoted his current concern with redeployment as a classic instance. If he was giving pure educational advice a lot of the teachers would be fired and new ones appointed. But the system doesn't work like that. 'We accept the existing procedures and constraints and so inevitably we are compromised by them'.

Colin responded:

> You have underestimated the importance of constant and careful cross-checking and the importance of doubting all information until it forces its truth upon you.
>
> You believe the head until you're forced not to. You have to go a long way with the heads because they are the people with power in the schools, and you have to work through them. Any other strategy would eventually prove counter-productive.

Chapter Eight

OTHER ROOMS; OTHER VOICES

This chapter describes a further experiment in methodology in the attempt to extend the scope, range and usefulness of ethnographic research in studying curriculum issues as they are realised in the classroom.

A constant and recurring problem in all research is that conventional forms of reporting tend to restrict access to smaller and smaller specialist audiences. In part this is due to the fact that researchers tend to generate specialist registers (jargon for 'jargon'), but more significantly it is that the very questions that drive research tend to be esoteric in the eyes of others. This chapter attempts to step beyond the bounds of reporting to a specialist audience of peers and to make use of a more popular and accessible form - the radio drama. Some might question whether this is appropriate within a research thesis, but I believe it is important to think of communicating research beyond the academic peer group as an essential aspect of the research process that should concern us all not, as is often assumed, that communicating research is a matter of disseminating findings and best left to a few people with an ability to work in the popular media.

I have a particular reason for making this claim, for in education in the last twenty years we have seen a professional concern with reform overtaken and replaced by a government concern to routinise and control the curriculum in the classroom. One of the reasons this has happened, I believe, is that research has created such narrow circles of influence for itself that it has failed to provide adequate grounds for critical public discussion of the issues.

The tendency of researchers to self-serving specialisation needs to be countered in several ways. It requires greater self-critical awareness on the part of researchers, it requires greater efforts to break out of the narrow circle of communication through specialist conferences and publications, and it requires greater recognition of the mutual interests of researchers, teachers, parents and students. But it takes more than an act of will to achieve. Just as the process of curriculum reform often foundered (especially in the US) when it was assumed that experts could solve these problems, so the achievement of popular access to educational research requires genuine collaboration, compromise and effort.

There is a tendency among some researchers to see the problem of sharing their concerns with a wider audience only in terms of content, leaving questions of method and methodology within the province of the professional. The public discussion that

followed the publication of Neville Bennett's book, *Teaching Styles and Pupil Progress* in 1976, for example, tended to take questions of method on trust and to focus attention on the findings of the study, though it became clear among professional researchers that a critical analysis of the methods was essential to an understanding of the significance of the findings. Moving discussion of methods from the realm of the technical is no easy matter. The application of Rasch models to questions of system-wide testing is a case in point (see, for example, Goldstein & Levy 1984). The assumptions built-in to such models are crucial to an understanding of their scope and limitations, but the significance of these assumptions are contentious even among practising experts in the field[1]

The use of qualitative methods in social science research poses a particular set of dilemmas in terms of the need to encourage public access to research discussions. Such research is typically carried out in close proximity to questions of acute public concern, not just in education, but in health and welfare, in unemployment, in relation to issues of race and gender, crime and violence, third world development and environmental issues. Indeed a long running debate among qualitative researchers concerns the question as to whether researchers should, or should not, align themselves exclusively with the disempowered, doing research in what Alvin Gouldner (Gouldner 1978) has somewhat dismissively described as 'underdog sociology'.

The particular dilemma for the qualitative researcher is that the methods that are typically used are not immediately recognised as having the technical sophistication of many statistical procedures. The dominant methods of observation and interview are apparently available to all. The response of many researchers to this problem (glance at any textbook on participant observations research, qualitative methods or grounded theory) is to add complication, intricacy and sophistication, in short to make discussions about methods more technical. There is another response, favoured by few[2], which is to see the everyday nature of qualitative methods and their transparency to common sense as a strength rather than as a weaknesses. If the methods of observation and interview are open to all, then it should be possible to provide access, not just to the results and findings, but to the methods, of research.

For this to be possible, it is necessary for research to report itself in such a way that the process and procedures are not kept separate from the findings, that language is not used to alienate the non-technical reader and the researcher does not hide the interventive

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[1]This is, of course, only a sub-set of questions about the limitations of expert knowledge in the face of the need for practical judgement. Albury (1983) has discussed such questions in the light of the philosophy of science, taking as an example the conflicting views of scientists in the nuclear power debate.

[2]Notably by Yoland Wadsworth (Wadsworth 1984, 1991)

nature of the research role. In chapter five I began applying these precepts in order to test their feasibility in action but allowing access is one thing, pursuing a non-technical audience for research is another. In this chapter I will report an attempt to break out of the confines of the research audience using the genre of the radio play.

The script which is reproduced here was developed from the files of a research project[3]; The research data concerns the question of how teachers who were involved in Nuffield Science saw it after some years teaching it. A critical event in the acquisition of the data was a week-end conference which Clem Adelman, Harold Silver and Hans Brugelmann assisted Barry MacDonald and I in running in the Summer of 1974. We invited twenty young teachers who had been using Nuffield Science projects to talk to us about their experience of curriculum innovation, their experience of teaching generally, and their perceptions of themselves as people who were also science teachers.

In the event what emerged from the week-end were twenty professional life histories in which the teachers wrote about how they came to specialise in science at school and at university, their experiences as science undergraduates, why they turned to teaching as a job or as a career and their motives for becoming involved in curriculum development. We asked each of them to write us a 'professional life history', using questions and categories we provided, but we also asked them, in small groups, to develop questions they found informative and to interview each other on tape.

The information we gained about Nuffield Science was useful, but what impressed us most was the total picture. The way the teachers saw themselves in the schools they taught in, their memories of their own schooldays, the questions they asked themselves about the value of what they were doing. I kept up a correspondence with some of them, and other pictures emerged - the routine of the school day, the press of events in a busy school, the particular difficulties faced by women science teachers.

We recognised the authenticity of the accounts we had collected and began to think about them in relation to the pictures of science teaching that emerge from curriculum project publications but despite the value of the information, our efforts to report it in conventional written forms left us dissatisfied. It was not until Caroline Pick[4], a BBC producer on attachment to the Open University responded positively to the possibility of a

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[3]The SAFARI project again, in which Barry MacDonald and I set out to test some of the ideas Barry had outlined as defining a 'democratic' model for educational evaluation (MacDonald 1974; Simons 1987)

[4]Caroline has since become well-known as an independent film producer, particularly of films that focus on feminist issues.

'dramatised documentary' radio script that we felt we had found a format which matched the data.

We gave Caroline access to the full accounts (which run to over 100,000 words) and, she and I produced a draft script which formed the basis of the script reproduced here. Despite severe selection and strong editing the testimony of the teachers remains in its verbatim form.. All the statements used were made by teachers in the form in which they appear in diaries or letters over which they retained control. I subsequently negotiated the release of the data with them individually. The interpretation, inherent in the process of selecting, editing and sequencing the material, was the joint responsibility of Caroline and myself. Selection of data was guided primarily by:

(1) *Thematic relevance.* In the correspondence I had maintained with three of the teachers I had asked them to write a running commentary on a typical day at school. Caroline used these letters to produce a composite account of a routine day in the professional life of the teacher. This provided a narrative device which was used as a structure within which the reflections of all the teachers about their roles and identities, life history and careers, issues and concerns could be located. Although quotes were made from most of the twenty teachers, the demands of the medium were for a smaller 'cast' of voices. Caroline condensed the various quotes into the voices of a small cast of characters providing a fictional device for managing the complex origins of the material.

(2) *Anecdotal vividness.* In selecting quotes for inclusion, we looked for the crystallising incidents often cited by teachers as important formative experiences. Anecdotes have a quality of undeniability which we hoped would make them memorable. Here there were difficult compromises to be made between the complexity prized by research and the aesthetic and narrative concerns of the script editor.

(3) *Range and variation.* The choice of data, whilst not representative in a statistical sense, was guided by the need to reflect the multiple character of the teachers' perspectives and responses. Within the compass of a brief interchange (the broadcast is limited to twenty-five minutes) the selection cannot span the range, but merely hint at it. Moreover, the reader should keep in mind the composition of the teacher group from which the data was elicited. All of them were young graduate science teachers who found it worthwhile to travel from different parts of the country to respond to the basic question we formulated in our letter of invitation. 'As a teacher involved in putting Nuffield Science into practice,

what is the relationship between the person you are, and the teacher you are' This question provided a theme for the play, which along with the narrative devices mentioned, constituted a further criterion in the selection, editing, and sequencing of the basic data.

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OTHER ROOMS; OTHER VOICES

(Bell)

1. NARRATOR:

Tuesday, 10th March, 8:30 a.m. Arrive. Go straight to lab. Put preserved foetus away out of sight. Mr.Lewis always leaves it on the front bench. I can't stand it. I use transparencies of embryos instead; they look pink and healthy.

8:45 Staff Meeting. Deputy Head asks for help with system for checking lateness. Today he's in brown suit with brown shirt and white tie; looks like member of the mafia. Meeting oozes sympathy. No-one prepared to lift a finger.

8:55 School bells stopped working. Go to classroom door and gesture them in. Several 'Hello, Mr. Windmills' as they file in. Registration: Paul and David just back after two weeks' suspension for stealing. They ignore me. Then - assembly.

(in hymn cross fade to playground and school and hold under)

2. MELVYN BLOOM:

When I think of my schooldays, I remember old buildings, huge partitions, out of tune pianos, my first ink pen, listening to songs on the radio, throwing cigarette packets against the wall. Interesting teachers who did everything better than we did, who'd been in the navy, been on long train journeys. Who could take a drag on a cigarette, drink a cup of tea and then let out the smoke. I remember the mysterious vicar in black with his apparatus for communion, ancient radiators that creaked and groaned. Prayer -'lighten our darkness on cold wet November evenings.'

3. SUSAN DALE:

Going through the education factory we took what was offer without really liking or hating any of it. Of course, we said we 'liked' the easy subjects and didn't 'like' the difficult ones. I chose science because I was good at it. And the biology master used to let me spend hours in the science lab. Anyway, physics and chemistry were subjects I wasn't allowed to do. They were 'boys' subjects'. Science meant freedom. It meant showing the school I could do what they said I couldn't.

I never wanted to be a teacher myself because all women teachers seemed sort of frumpish and fuddy-duddy and boring.

(school background into bell)

4. NARRATOR

Bell working again. Go to junior lab. Let in second form. Teach introduction to reproduction. Paves way for fertilisation and embryo on Friday. Make joke about millions of sperm swimming to their doom; class relaxes for ten minutes of questions and answers.

(Fade up playground and school and hold under)

5. MELVYN BLOOM:

In my probationary year in teaching, I was innocent about what really went on in schools. I was totally inequipped to teach 'general science' to unacademic kids in a new comprehensive school. It was a disastrous start. I misjudged the

children - their capacities and interests. Also my ability to hold their attention. I had continual trouble with 'control' and 'discipline' and failed my probation.

6. SUSAN DALE:

In my first year I had a very difficult third year class. I spent six weeks getting nowhere. We were doing chemistry. One day I had a bottle full of red lead. I stood at the front and banged the bottle to get the class to be quiet. No response. So I banged again. Again no response, I banged harder, and the bottom of the bottle fell out. Red lead from head to foot. What's more it's bright orange and I was wearing cream. There was just me and a cloud of red lead. The first time I ever got absolute silence. All the kids reactedbeautifully. They howled with laughter, rushed to the front, tried to brush me down. They just brushed it in! Then I fell off the rostrum, I was laughing so much. After that no problems because the kids were impressed that I could laugh at myself.

7. RICHARD CRANE:

I began by teaching science in a London comprehensive which was just starting. The Head seemed very intelligent, liberal and enthusiastic. He said 'There will be no corporal punishment in this school.' Applause, applause from all the staff. A few weeks later he caned the first pupil.

My favourite class was remedial biology. One day we were 'doing' earthworms. I asked the kids to write poems; one boy wrote this:

'Little earthworm all calm and placid
'til I shoved him in some acid.....'

(School and playground into bell)

8. NARRATOR:

First form. The biology of any animal of their choice. I'm bored but they enjoy it. All I can do in one lesson a week.

(Fade up playground and school and hold under)

9. MELVYN BLOOM:

I teach by instinct. If it goes well then I carry on, if it doesn't, I try and think of something better. I've never been one who analyses what he's done.

10. BARBARA GREEN:

I went to a very authoritarian girls' school and I try not to be like the teachers there. But you've got to be careful it's not all you giving and them talking. When I'm tired, fed up, or got a hangover, I just want to say 'You just shut up because I tell you to'. This whole authoritarian thing's very difficult. Also get a lot of trouble with 4th year boys and 5th year boys are always touching me up.

11. RICHARD CRANE:

When I'm teaching, if somebody mutters something funny, usually I laugh. But if it disrupts the lesson totally, I'll laugh and then tell the bloke off. O.K., it was funny but it wasn't the time or place for humour. One of the things he's got to learn is there's a time and place for everything.

12. MELVYN BLOOM:

Someone said - if you can teach at this school you can teach anywhere. I almost believe it, but still there's an enormous gulf between me and the pupils. Though I've tried I can't seem to get into working class culture at all.

(fade school background into bell)

13. NARRATOR:

10:45 Break: Chat to John. He's spent more time with educational psychologists than anyone, but seems on good form with 'bovver' haircut and 2 inch platform-shoes. Warn him that Deputy Head has views. John says he'll hide his feet in public!

(Bell)

Upper Fifth. Ask whether they've been given brains since last week. Actually they're very bright.

(Fade up school and playground and hold under)

14. MELVYN BLOOM:

The Head of Physics makes me insecure. He's a very nasty person, calls me 'bloody Smith'. I call him 'bloody Jones'. All good-humoured, but he definitely dislikes me and what I stand for. He's two years off retirement, and has taught here ever since the war, when he got the job after two hundred others had applied for it. Then he saw himself at the top of the scale, his pay on par with the local doctor. All this has vanished...he's not a happy man, and it's all *my* fault!

15. BARBARA GREEN:

Life really is difficult in this school. One week I asked leave to attend a job interview, the headmaster advised me to give up teaching, *and* I was hit over the head by a pupil with a chair. Perhaps it's my problem, a problem I have to live with, which I can't unload. But a greater sense of belonging to a department would help. At least I'd get advice then and share it with others.

(School background into bell)

16. NARRATOR:

11:45 Lower Sixth. Most finishing notes as instructed. Go through filter action of *Glomerulus* and then set homework.

(Fade up school and playground)

17. SUSAN DALE:

I think too much is expected of us. For most people it's impossible to do the job even adequately. People compensate; they compromise in the way that they teach, in the materials they prepare. The roles they're expected to play are too wide and there are too many different ones. They're expected to be authoritarian and to relate to children at the same time. You've got to tell them off for not wearing school uniform and have a trusting relationship with them.

18. RICHARD CRANE:

When the kids actually ask questions that I've not thought that they could, and when one of them goes further and expands something, and then the bell goes and they say 'that's not the bell, is it sir?' it's exhilarating. Mind you, it also makes me hopping mad. The bell controls their lives. Normally they pack up five minutes before it goes.

(School background into bell)

19. NARRATOR:

12:30 Lunch: Chat to two groups about 'open careers meeting' in library - a follow-on from last term. They decide to have it on Thursdays. Send note to careers master for OK. Another note back - 'yes, damn you'.

1:30 Back to lab. for own third form. Prepare demonstration of injected kidney.

(Bell)

1:50 See Blackburn. He didn't have permission to be out at lunch. Says he went to chemist to get plasters for blisters caused by new shoes, black, to replace old shoes, brown, which deputy head didn't like.

(Fade up playground and school and hold under)

20. SUSAN DALE:

The best times teaching are out of school. I went for a fortnight camping with some kids once - I'd taught about thirty of them and we took ninety. They live all round the common, but never go out and look at it at all. They didn't realise you get oak trees and sycamore trees. Each was just 'a tree'. The first day we went into a wood and told them we had to be quiet and creep about and not disturb anything because they were there to observe. They'd never been in that situation before. They started creeping round but finally they were rushing up with this and that and the other and saying 'come and look'. I'd never seen them so interested. We were with them from the time they woke up until bed, getting to know them very well. You appreciate them so much more, even kids that you couldn't stand previously.

21. MELVYN BLOOM:

The worst thing is teaching something you've taught often before. You assume the kids know something about it. You miss important points or you tend to dwell on things that came up in an earlier class. If you've not taught it before you don't know what to expect and you're much fresher. I don't like teaching the same thing on the same day, even the same thing in the same week. But, if you are doing things like Nuffield Combined Science with the apparatus and everything out, it's much more practical.

(School background into bell)

22. NARRATOR:

2:30 Free Period - in staff room. Check teaching notes for two fourth form tomorrow.

(Fade up playground and school and hold under)

23. RICHARD CRANE:

The kids are generally very sophisticated. From second form upwards, they start getting off with each other. But some classes have idiosyncracies. Like 3XY girls hate 3XY boys. It's all hell, spitfire and brimstone. Everything the boys like, the girls hate-and vice versa. In other third forms they get on very well. They don't regard girls as softies. In fact, the girls tend to be the spokesman for the class.

I taught a lesson on hormones and I was talking about adrenalin and the fact it make you blush. 'That's why you go red and pink,' I said. There were some

coloured girls and one of them turned round and said 'Well, I don't go pink.' We all collapsed, me included.

(School background into bell)

25. NARRATOR:

3:10 Fifth form in other lab. 'Bracing chat' about 'O' levels, jobs and the importance of these next two terms. Then get on with lesson about Perilymph and Synosial Fluid.

(Fade up playground and school)

26. BARBARA GREEN:

Being a schoolteacher's a battle. It's the putting things in boxes; school hierarchy, size of classes, everything. Teaching's a terribly immoral profession. It's one of the most dangerous jobs you can do. I think school's a place where people inflict their fantasies on others. All their feelings of power and authority. The education system seems as uneducative as possible. The whole *thing* about syllabuses, exams and the contradiction of my taking an 'O' level group and not believing in it or CSE or *anything*. And having to teach kids something they don't want to know because it's boring and I think it's boring too. But I have to make sure they pass their 'O' level because of their future careers. And then what's a career doing for them? It's helping them to be even more exploited.

27. MELVYN BLOOM:

I am increasingly unclear as to what schools are for. I've got the feeling that many, perhaps most, embody values which I find alien or perverse. I'm obsessed with the way they depersonalise kids.

28. RICHARD CRANE:

My class were bored and did nothing. They were fed up and accepted their position as that of the damned. When our first assembly day loomed close, they had produced nothing. So I said, 'Know any good rock music?'. Heads turned. I said 'What makes you most fed up in the world today?' and off we went. We rifled through my stock of colour slides and put together a tape-slide sequence ending with Crosby, Stills, Nash and Young - 'Teach Your Children Well'.

(fade up music).....

It worked marvelously. The kids felt brave and out of line and they were the first ones to have done their own kind of assembly. There began to appear chalk on tables and blackboards all over the school-'3K Rule OK'!

(Music and school background into bell)

29. NARRATOR:

3:50 Back to form room to dismiss class. Paul, David and Judson skipped off already.

3:55 Back to staff room. Tea urn packed up so no tea.

4:00 Go out to car. Find Judson, Paul and David beside workmen's shed on building site (looking very conspiratorial). Smile, say hello and ask if they'd forgotten about registration after five years at school. They move off cheerfully. If they're going to form a triple alliance my work's cut out. Must see them individually. Depressing thought. Suspension seems to have done little to influence them.

(Fade up school and playground)

30. MELVYN BLOOM:
After years of teaching I'm becoming a little sour and uninspired. I'm depressed by lack of staff, lack of good science teaching colleagues, lack of lab. assistance and by lack of imagination by local authority. I'm a teacher still full of good ideas but less and less willing to put them into practice.

A teacher with a lot to do outside the classroom - ordering apparatus, planning courses and

(fade up music)

without time to do it.

A teacher at the cross roads.

(peak music)

(fade music and background effects)

ANNOUNCER:
The script was devised by Caroline Pick in collaboration with Rob Walker.

The narrator was John Barcroft
The voices of the teachers:
Anna Barry
Norma Ronald
Geoffrey Matthews and
Peter Pacey
Script consultation was by Donald Holms
The producer was Caroline Pick

---ooOoo---

Chapter Nine

USING PHOTOGRAPHS IN A DISCIPLINE OF WORDS

You can't say more than you can see.
Thoreau, quoted by photographer Paul Strand,
quoted in turn by critic Susan Sontag.

Photographs do not in themselves narrate . . . they quote from appearances.
John Berger,
painter, critic and writer.

All photographs are accurate. None of them is the truth.
Richard Avedon,
photographer.

----ooOoo----

Margaret Mead, cultural anthropologist (Mead 1975), Pat Templin, evaluator (Templin 1979, 1982) and Max Charlesworth, philosopher of science (Charlesworth, Turnbull & Stokes 1989), among others, have all noted the curious paradox that, while modern science places visual data, including forms of photography, as central to its methods and forms of data gathering, modern social science give visual records scarcely any attention[1]. Yet social science seems constantly to be seeking recognition as science.

A cursory scan of the social science literature would suggest that social scientists have seen the hallmarks of science to lie in its uses of measurement rather than in its use of the visual, a view of science that derives from the ways in which scientists report their work[2] rather than in any close understanding of what they do[3]. ..Measurement has been pursued by social scientists as a link between science and social science, but it has actually been used in very different ways, and most often for confirmation rather than for exploration. The consequence seems to be that where most scientists place a strong sense of trust in what they are able to visualise, social scientists trust only that which is put words.

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[1]Margaret Mead makes the point most strongly, in attempting to explain the 'criminal neglect' of visual methods by anthropologists, she writes, ". . .anthropologists . . .have continued to use questionnaires to ask mothers how they discipline their babies, words to describe how a pot is made and a tangle of ratings to describe vocal production. To add insult to injury, in many cases they have disallowed, hindered, and even sabotaged the efforts of their fellow research workers to use the new methods. [. . .] I venture to say that more words have been used, spoken and written, disputing the value of, refusing funds for, and rejecting these projects than ever went into the efforts themselves.' Mead, 1975, pp.5-6

[2]Medawar (1963) provides the classic account of the misconceptions of science that lie in reconstructing research from the reports that scientists give in journals.

[3]Bruno LaTour (1983), Bruno LaTour & Steve Woolgar (1986), Stephen Jay Gould (1989) and Max Charlesworth *et al* (1989) provide accounts of scientists at work which reveal the significance of visual imagination in various branches of science.

As a result, research in some areas of social science has become virtually synonymous with scholarship, with reading and writing, rather than with empirical research, and where empirical research is significant it is transacted almost entirely as numbers (survey research, experimental studies and testing) or as words (participant observation, interviewing, history): pictures are mostly invisible.

It was not always so, Clarice Stasz (1979), has described how photography figured in sociology in the US at the turn of the century (between 1896 and 1916, 31 articles in the *American Journal of Sociology* used 244 photographs). But at the time of the First World War there seems to have been a sudden shift away from the use of photographs to an image of sociology as an entirely text-based science. While there were some other reasons for a shift to print dominance (a shortage of paper in the War, for example), the main reason appears to have been the desire of a new group of editors to give the subject academic respectability. The AJS editor, Albion Small, was anxious to promote sociology as 'a pure science' and to establish that the 'attitude of the sociologists toward their problems is precisely that of chemist, of physicist or physiologist towards his'(Small 1905). As Stasz points out, this policy had some significant sociological consequences. It reduced the number of contributions from women, it favoured contributions from those located in academic institutions and it reduced the involvement in academic sociology of those working for social reform in charities, Associations and government agencies.

Photography remained alive in anthropology, but only as a minority interest and then mostly for technical purposes. Margaret Mead, in her introduction to the key text in the field, and using the title I have borrowed for this chapter provides an interesting explanation for anthropologist's neglect of the visual in the context of an eloquent plea for greater methodological imagination:

> A partial explanation of this clinging to verbal descriptions when so many better ways of recording many aspect of culture have become available lies in the very nature of culture change. Much of the fieldwork that laid the basis of anthropology as a science was conducted under conditions of very rapid change, where the fieldworker had to rely on the memory of informants rather than upon observation of contemporary events. The informant had only words in which to describe the war dance that was no longer danced, the buffalo hunt after the buffalo had disappeared, the discontinued cannibal feast, or the abandoned methods of scarification and mutilation. Thus ethnographic enquiries came to depend upon words, and words and words, during the period that anthropology was maturing as a science. Levi-Strauss has devoted all of his mature years to an analysis of that part of myth and folklore caught with a written translation of a written text. Lowie, working on Indian reservations, demanded how you could know that an individual was someone's mether's brother unless someone 'told' you so. Relying on words (the words of informants whose gestures we had no means of preserving, words of ethnographers who had no war dances to photograph), anthropology became a science of words.
>
> (Mead 1971, p. 5)

In the light of Margaret Mead's comment, it is a curious paradox that , in the 1970's, when educational research was searching for methodological metaphors that would bring it closer to the realities of classroms and schools than was possible with measurement techniques, it lighted on ethnography[4]. Those few anthropologists who worked in education responded by defending the fieldwork tradition that Margaret Mead identifies as the source of conservatism (Rist 1980, Wolcott 1981). At the very point in time when portable recording instruments (audio cassette recorders, radio microphones and video) were opening a new world for those seriously interested in studying social interaction up close, the guardians of the disciplines slammed closed the door. The implicit definition of ethnography as a science of words was retained (even seized) by sociologists[5], and the task of documenting the social world left to film-makers, journalists and the odd stray biologist[6].

My intention in this chapter is to argue for a reassessment of the way in which educational research has adopted ethnography as a metaphor for forms of research that deal directly with observed realities. Margaret Mead's observation that ethnography has itself been captured by the dominant literary values of our own culture has no echoes in the educational research literature. Educational researchers appear to have accepted ethnography as a literary science without question. This is even true of those who had access to alternatives. Thus Paul Willis' book (Willis 1977), while innovative within the ethnographic form, does not make use of the potential that exists in cultural studies to develop alternatives, even though he works in a Centre that has been central to the development of media studies, and of cultural studies more generally (the Centre for Contemporary Cultural Studies at the University of Birmingham, founded by Richard Hoggart and later directed by Stuart Hall and Richard Johnstone). This would suggest that these traditions are strongly institutionalised and that the decisions Albion Small made in editing the AJS were not minor shifts in policy but mark significant disjunctions in the formation of the discipline. They involve the separation of theory from practice, the professionalisation of research and demarcations between academics and practitioners.

This chapter takes the use of photography as a case with which to demonstrate alternatives. This is not an easy thing to achieve as intellectual traditions cannot be

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[4]Parlett & Hamilton (1972) were the first to popularise the idea that 'ethnography' provided an alternative to measurement in the evaluation of educational programs.

[5]Look at any of the standard textbooks. The only one to make effective use of photographs as research data is Bogdan & Biklen (1982).

[6]Desmond Morris is the best known (Morris 1985), and Lorenz the most influential (Lorenz 1964) To be fair, others include sociologists (Goffman, 1974), anthropologists (Hall, 1973) and psychologists (Ekman. 1973, 1982, 1986)

merely set aside. There are many points in this chapter which can be interpreted as a lapse back to what has become conventional educational ethnography. What is important is to demonstrate the struggle as much as the achievement. To argue from a demonstration project is to attempt to provide alternative models as well as an alternative vision. One of the reasons that educational research has adopted such a limited, even stunted, concept of ethnography is that it seized the idea without any sense of its consequences and implications. It is important not to replicate the error.

'Pictures': A collaborative project

During the period 1977-9, Janine Wiedel, a photographer, and I carried out a collaborative research study at Pimlico, an inner London secondary school. An explicit aim of the study was methodological, that is we wanted to test out the potentials and the problems of having a professional photographer and a social researcher working together in observing classrooms and schools at work. While we both had 'field experience' - Janine had extensive experience of working in schools and had previously published and exhibited photographs taken during long periods of living and working on Baffin Island, among Irish Tinkers and among Nomads in Iran - we were aware that the different preoccupations of photography and educational research would lead us in different directions. Rather than reduce the photographs to the role of illustrating a text (the conventional textbook device), or interspersing text and photographs with little or no attempt to integrate them (the standard coffee-table book solution), we wanted to test out points of contact between the interests and concerns of research and documentary traditions[7].

In consultation with staff at the school we decided to concentrate our attention on one, first year class; to begin with their maths classes and later to follow them through the full range of timetabled subjects over a period of a year. Behind the decision to adopt this design lay a number of concerns. The school was very conscious of its multi-racial intake (at that time more than 40% non-Anglo) and concerned about its image among parents and the community. The admininistration saw in this project a way of communicating understanding of its attempts to create a harmonious multi-cultural, multi-racial ethos to those inside and those outside the school. It was confident in its aspirations and in its program but less so in its public image[8]. From the start it was clear

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[7]Andrejs Ozolins later made a similar point, recommending collaborative research on the grounds that 'a photographer is not a good observer, moreover a photographer is a poor interacter' (Bogdan & Biklin, 1982, p142). This was not our experience, but it was true, as we describe later, that the photographer's concern with aesthetic values interacted in in different ways with the researcher's pursuit of other truths.

[8]At around this time the school had featured on the front page of a National Front Youth magazine and students were being approached by the National Front in the street outside the school.

that we entered into a commitment to communicate with audiences both in the school and in the community[9]

The decision to focus on one class came about after some initial attempts to photograph contrasting classes. This worked well photographically, but from a research point of view it was clear that if we were to develop good 'fieldwork relations' with students and with teachers, then we needed to limit our scope. Some teachers were willing to let Janine come in and out of classes to take photographs, but it became clear that staying in a class for any length of time created considerable pressures. The head of the maths department was strongly supportive of the study and we decided to begin with one teacher who seemed seriously interested in the idea of having us work in her class over a period of time, who was curious about the study and who we felt confident could manage the pressures that would be created. Most teachers were concerned that we would 'disrupt' their classes, but by becoming a familiar feature in one class with a confident teacher we believed it would then be easier to follow that class to other teachers. This in turn restricted us to a first year class because this was the only level in the school where the same group stayed together throughout the timetable.

We began the study early in the first term, Janine and I made preliminary observations in the school together during which we talked to those teachers involved about what we were doing but spent little time in classrooms and took no photographs. After two weeks Janine went into the maths class and observed and photographed their maths classes over a week. Within two weeks we had the films developed and printed and I returned to the school to collect responses from the teacher (first), then from individual students and finally from groups and the class as a whole. Individuals were offered the chance to edit out prints that they found embarrassing or did not want the class as a whole to see.

The first response was one of surprise at how many photographs Janine had taken (around 200). Teacher and students had seen her taking photographs but had only noticed her taking photographs occasionally. Second was the fact that when people looked through a stack of prints they would give a continuous commentary, periodically pausing to give extensive comments on a print or (more often) a sequence of prints. Third, we were surprised at the ability of the teacher and the students to read contact sheets of 35mm negatives. The conventional wisdom is that it takes photographic training and experience to do this, which is why we had produced quite large (8"x 6")

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[9]This study was carried out within the ambit of an SSRC project which was concerned to investigate the ways in which different groups, including inspectors, parents and teachers formed images of classrooms and schools.

prints for them to look at, but it seemed that in a situation they remembered, contact prints were readable, and had the advantage of preserving sequence.

Given the responses and explanations we were given by the teacher and the class, Janine and I prepared a first 'display'. This consisted of prints mounted on large display boards along with quotes from the teacher and the students. The display was intentionally provisional - we used temporary adhesives and mountings so that prints and text could be moved around and deletions and additions made. We took this display back to the class where a whole period was used for students to look at it, read the comments and add any comments that they wanted. We did not initially intend the pictures to take up so much class time. They were intended to be available in the classroom through the period for students to look at when they wanted to. We underestimated the interest they would generate, in partcular we underestimated the time that students would take to read the comments and the commentaries we had written. These were entirely in the form of quotes from the teacher and the students and we had thought that the students would ignore them and concentrate on the pictures. We were wrong, even those with limited reading skill spent time reading through what everyone had said.

This display was reassembled using additional material from the students and given to the school for two weeks, during which time it was used as the basis for discusssion by the maths department and later used as part of a display for a parents' evening. We had hoped to be present at these events and to use the responses of other teachers and parents as a further source of commentary. In the event neither was able to be there but the teachers seemed to feel ownership in the sense of seeing the display as representing what happened in their maths classes, and perhaps our presence would have discouraged this.

In the next phase of the project we repeated the same sequence of activities in other classes. Janine went, successively, into craft and design, into English, humanities, science, the library and physical education. In each case we discussed what we were doing with the class teacher, Janine would photograph lessons through one week, or sometimes two weeks, I would return with the prints and talk to the teacher, then to the students and we would use this information to assemble a display.

The fact that this process ran smoothly was mainly due to the fact that Janine had established herself early as someone who was unobtrusive, who would not disrupt lessons, and the class had got used to both us being in the school and had developed a good understanding of what we were doing. The only problem we encountered in negotiating access was with the English department. They had previously been used as

the source for a university research project and felt their trust had been abused. They had not received any reports from the project but a teacher had come across one while doing a course and felt that what had been written about teaching at the school was inaccurate and unfair. As a result the department had resolved not to admit any research projects from the university. Our project was exempted, not from any approach on our part, but because other teachers in the school persuaded the English teachers that this was 'different' and that the school had something to gain from it.

As the project progressed, themes and ideas emerged, some transient in the life of the project, others more enduring. Some were themes we predicted, others we did not expect. Some we encouraged, others took us by surprise. Some themes were personal, others intitutional. Curriculum questions (of one kind or another) loomed large.

At various times we discussed:

- the different (and similar) roles that individual students would take in different classes,
- the range of curriculum ideas and activities that students encountered as they progressed through the timetable,
- the unexpected parallels and overlaps in curriculum that occurred (for example, between maths and craft/design)
- the strong sense of boundary some teachers maintained between being inside the classroom and being outside it,
- the emerging identity problems faced by black students in secondary schools that aspired to multiracial/multicultural policies,
- a sense of surprise (for the teachers) on recognising how little they knew about classroom teaching outside their own room or their own immediate group of colleagues (in a school that was staffed by young teachers who prided themselves on their professional and personal 'openess').

Within the scope of this study we were unable to follow these ideas very far. The study was intended as a methodological experiment, designed to demonstrate possibilities rather than as a fully developed research study. The fact that these issues emerged, and appeared to dominate any narrowly technical concerns about the selectivity and bias of the camera, was enough to make the point. What was clear to us was that the way in which we had used photography provided a research context within which teachers (and students) were able to raise some of their own research questions in a way that was not self-consciously constrained by what they took to be the methods and theories of educational research. A major contemporary problem in educational research,

in the context of arguments for action research and for the idea of 'teachers-as-researchers'[10]has been the idea (and the requirement) that teachers should feel a sense of 'ownership' of research. In practice this has been difficult to realise so long as the predominant methods used in classroom research are those developed by psychologists and educational researchers. The project reported here has attempted to find other ways of conducting research, still derived from the work of 'outsiders' with particular skills, but used in ways that attempt to shift the role of the outsider to being 'an authority' rather than 'in authority'. Perhaps paradoxically, we have argued implicitly that a strong and developed skill or specialised training on the part of the outsider can create the conditions for greater professional autonomy on the part of the teachers.

Ten minutes at the teacher's desk in an individualised maths class

This sequence of photographs shows the interactions around the teacher's desk during one of the first maths lessons early in the school year. The school is using the maths curriculum 'SMILE', an individualised program consisting of a network of materials through which children work according to their prior levels of success. An early problem for the teacher lies in introducing this way of working to students who may not have experienced it before.

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[10]The idea is generally attributed to Lawrence Stenhouse (Stenhouse 1975), having emerged from the Humanities Curriculum Project in the early 1970's. Operationally it owes a good deal to the work of other members of HCP, particularly to John Elliott (Elliott & Adelman 1975; Elliott, 1991) and to Jean Rudduck (Rudduck 1992)

Teacher: This was a bad day for me!
I don't really like sitting at the front but prefer to move around the room. But this was the beginning of the school year when they were still a bit unsure and so many of the children wanted to see me that I had to stsay at my desk. I don't really like it because I feel so pressurised. I prefer to be moving around the room because then I can set the pace. When they all start collecting around my desk I feel like shouting 'Go away!'

Teacher: Coral (in the middle) and Joyce are friends, Joyce often needs help with her work, but sometimes I think Coral pretends she doesn't understand just so she can get my attention.

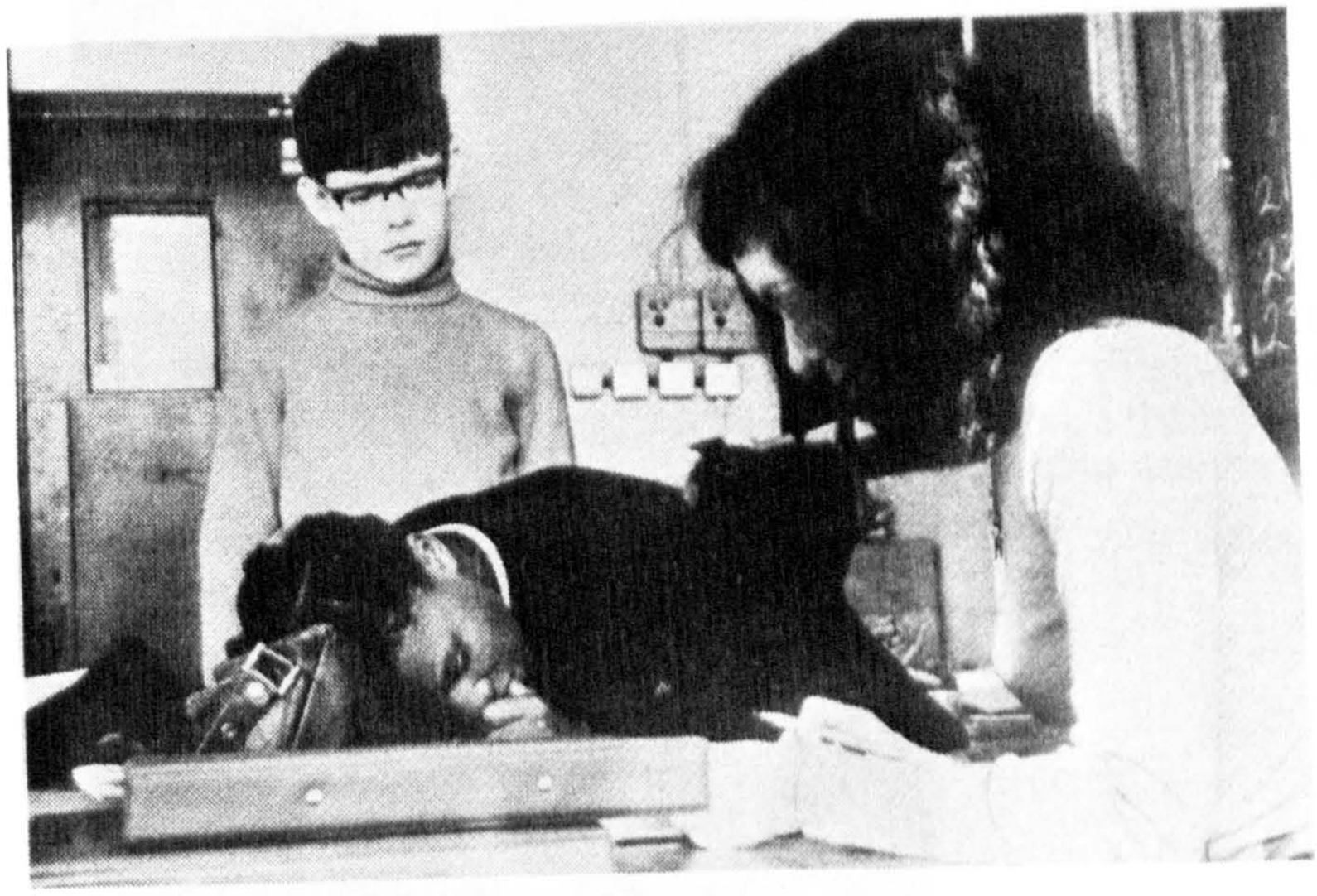
Teacher: The boy who has joined the group is Jonathan. He is a clever boy, but not in a swotty way, he's very sweet. He seems interested in Coral's test too.

Joyce: That's my book Miss is looking at. Coral is just looking into space.

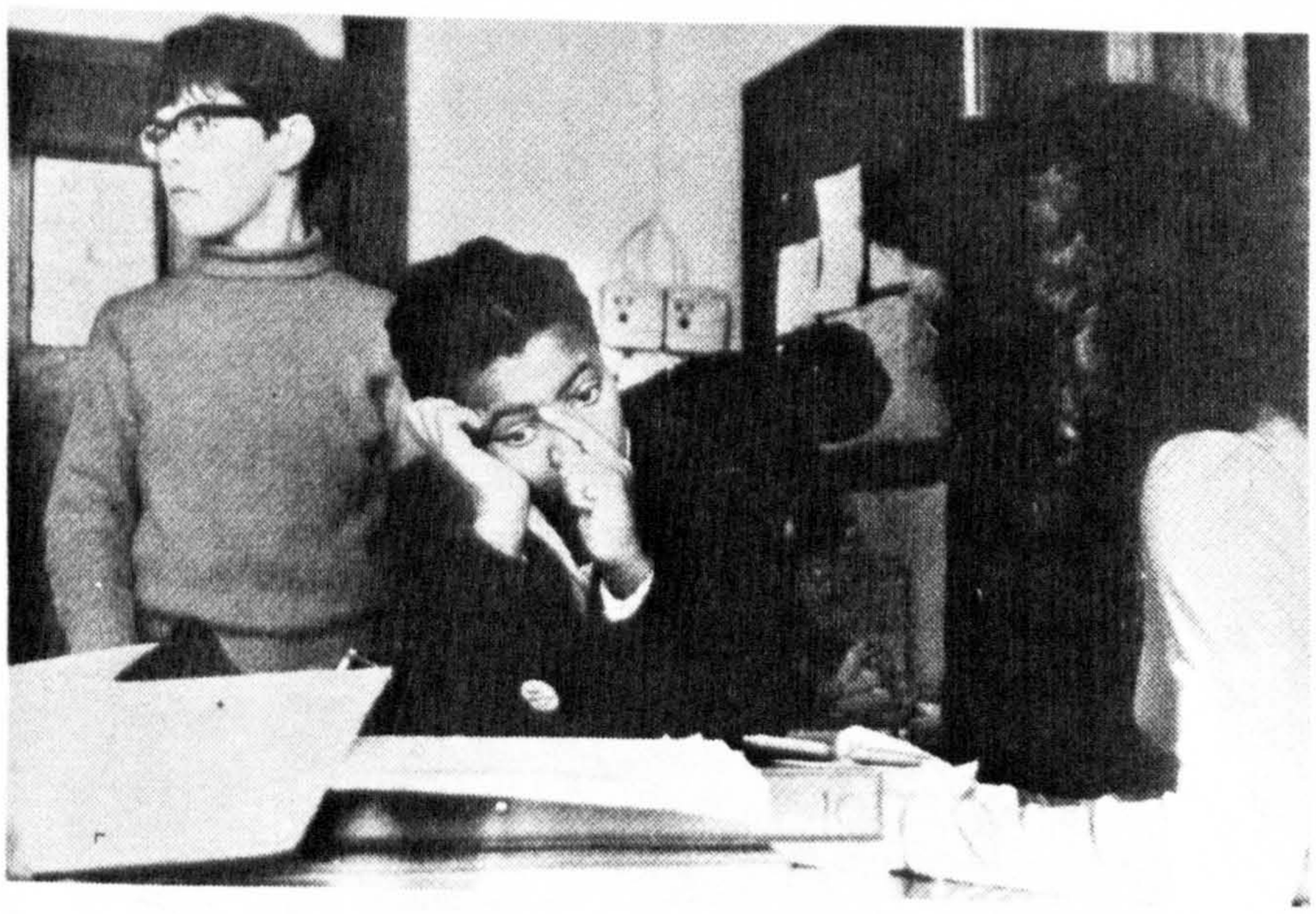
Jonathan: Coral's stuck. I'm listening in case it is a card I haven't done and I might get it later. Coral's looking disgusted, so maybe she 's got something wrong.

Teacher: Coral has obviously got something wrong and Jonathan is looking very wise!

Teacher: She has got something else wrong!

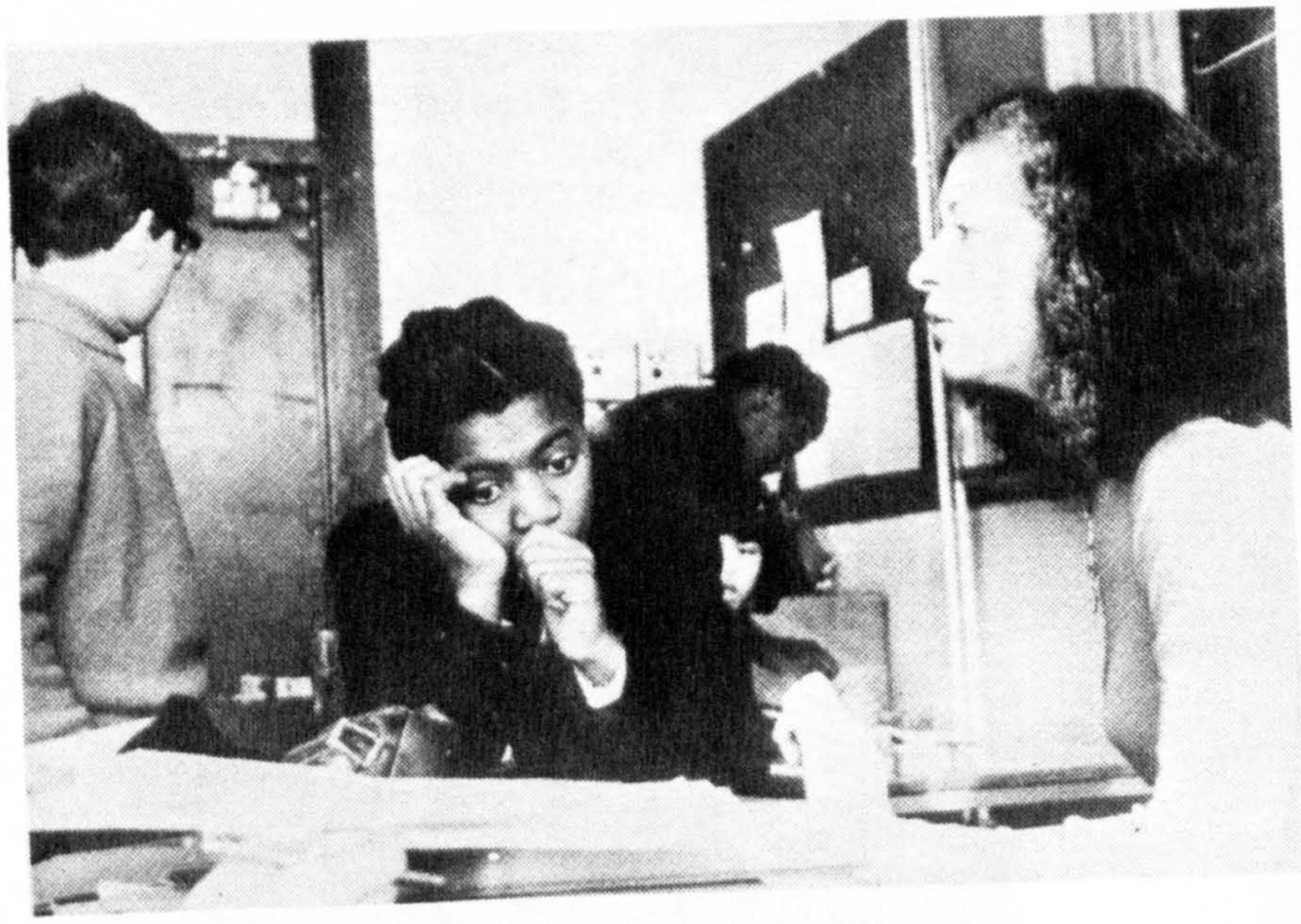


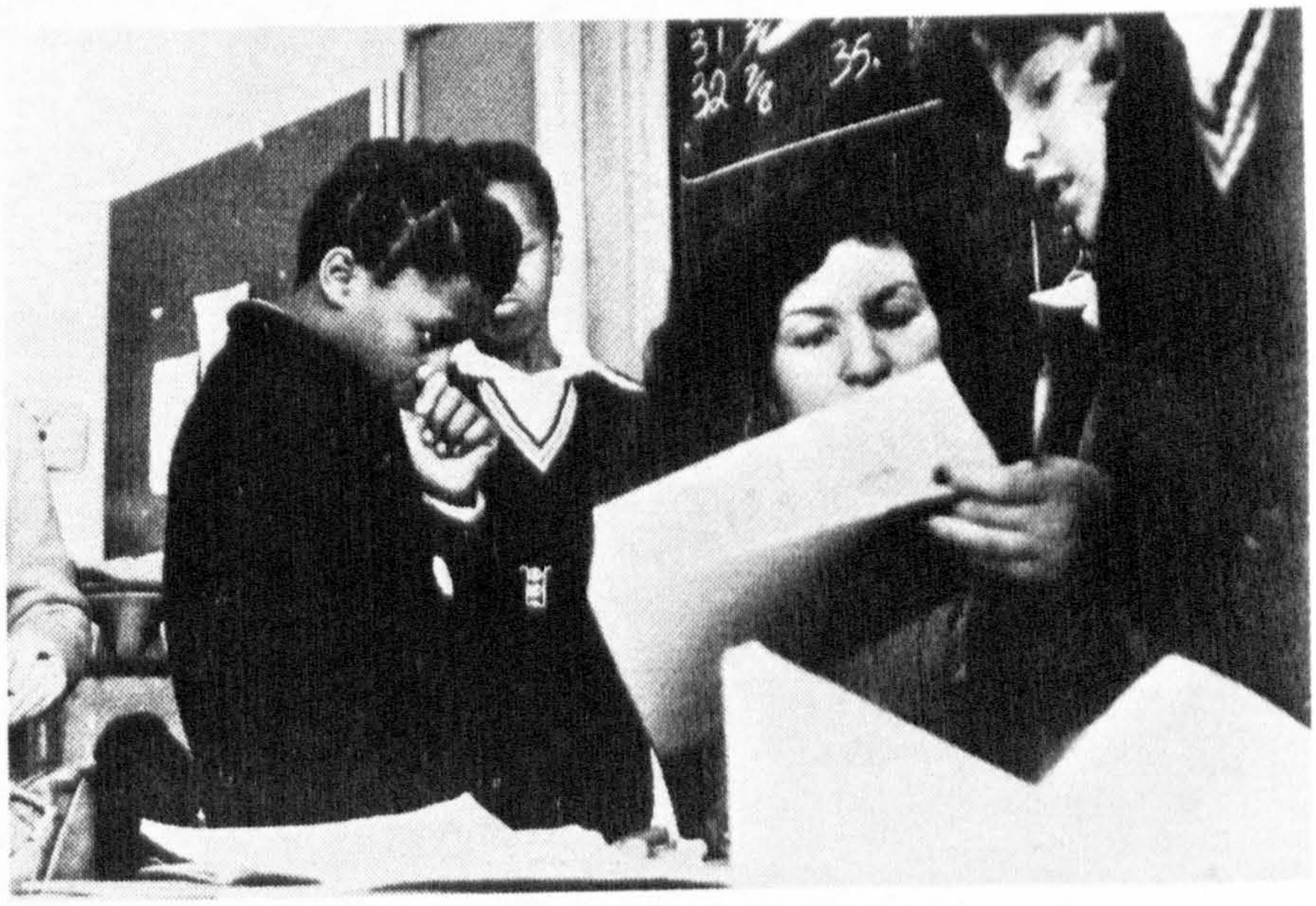
Joyce: She's sleeping!



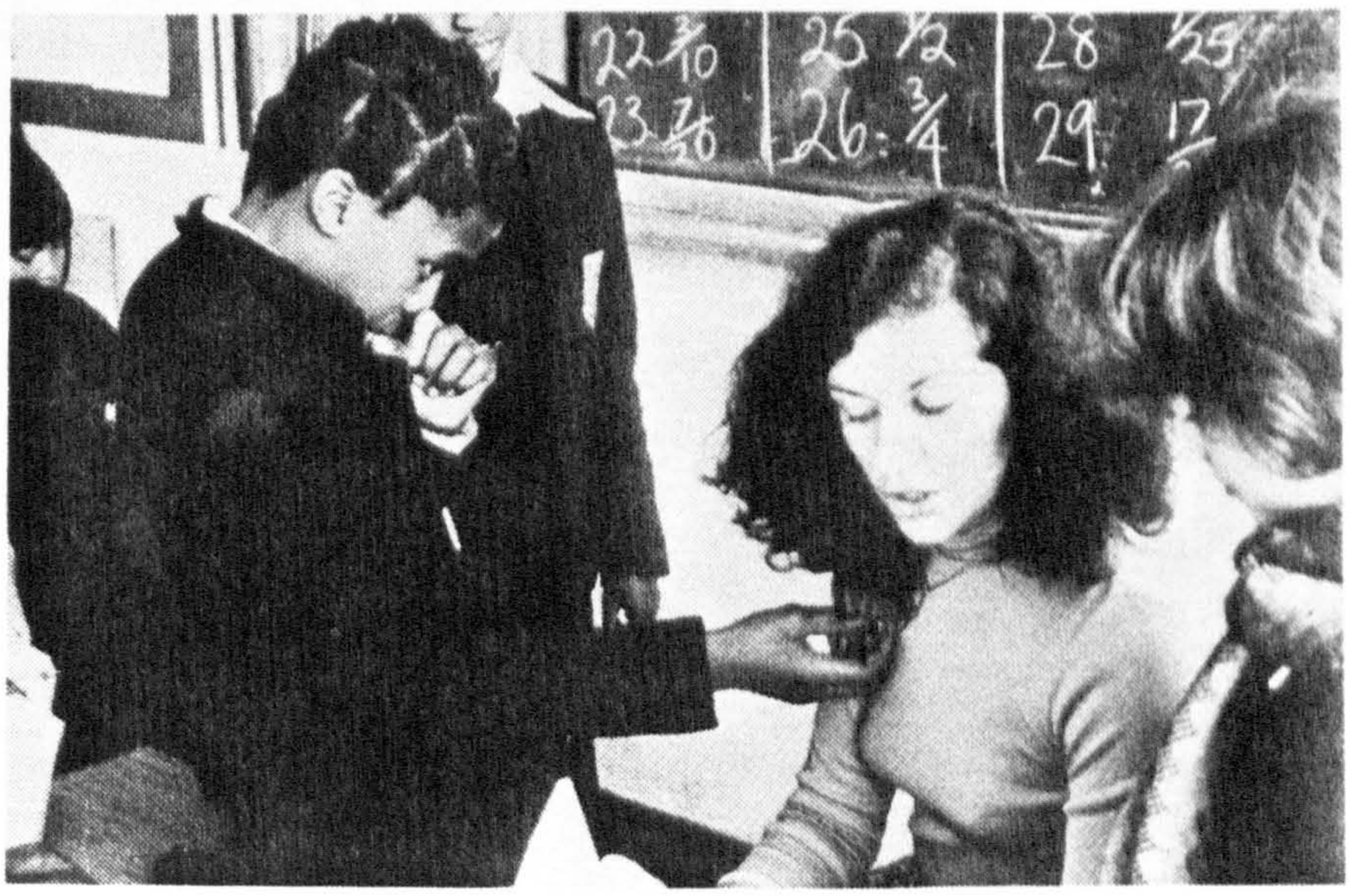
Jonathan: Coral is doing a card on maps where you have to find the co-ordinates - you can see the squares on her book. I was waiting because I was stuck on prime numbers.

You do all the cards and mark them yourself, then you do a test and the teacher marks that to make sure you've got it right and you're not cheating. I hadn't quite finished, I thought I understood it but I wasn't sure, so I wanted to ask the teacher





Teacher: You see, when I'm not talking to her, Coral reaches out for my necklace, maybe because she is interested in it, but also in a bid to get my attention back!



Joyce: She's playing with Miss' necklace. Miss told her to leave it alone and go back to her work


32 7/8
35. 1/3
25


24.
25

Teacher: Oh dear! Jonathan is still waiting! So many others are waiting now and they are getting impatient. I hate them being around the front like this, and if it was anyone else but Coral I'd send them away. Jonathan looks so bored!

Jonathan: No, I'm not bored. Melanie's stuck on Magic Squares, and I haven't done that one yet. I'm looking like that because I'm reading the next page that Miss is turning over.

Two perspectives

There are a number of ways this sequence[11] might be used and interpreted. In the context of this methodological discussion I will concentrate on two ways of looking at the sequence that arose in our discussions in the school.

One of the things that attracted Janine to this sequence was its social and interactive intensity; it is a sequence in which expression and gesture are picked up well by still photographs[12], where they might be lost to fieldwork notes, or even to video. Janine saw the events as revolving around Coral, whose moods and and changes of mood seem to be the focal point for the others involved. It was Coral's reaching out for Jane's (the teacher's) necklace, which caught the attention of teachers as they looked at this sequence. Jane told us:

> They often want to treat you as Mum. I'm not like that. I'm not that sort of teacher. Sometimes I think maybe I'm horrid to them! Not in a nasty way, but if they start putting their arms around me I tell them not to. They're always interested in personal things. They asked me what my husband gave me for Christmas. Well, we don't really give each other presents at Christmas, but he had given me that necklace, so I said, 'Oh, he gave me the necklace'. They thought that was nice, and that he must be a good, caring husband. They wanted to make sure he was treating me well!
>
> They notice what you wear, even if it is an old skirt that you haven't worn for a long time, they'll notice it and ask you about it. When I first came here I'd worked in industry and I used to dress well - not like I do now! They'll always take an interest in what you are wearing, even the boys. I once wore this gold belt and one boy kept asking me about it and wanted to know if it was real gold!
>
> Children this age are very interested in what you wear, especially the girls. They notice when you wear something different, even if it is something old, and the comments they make are so nice. They don't criticise or say that they don't like things. They always say things like, 'I like your sweater Miss', or 'Isn't it a lovely colour.'
>
> When they get a bit older they get more interested in their own things. Sometimes we take them away on trips and they'll spend ages deciding what clothes to take, and when they get there, deciding what to wear. They'll have long discussions about, 'Shall we wear our plastics today!'
>
> In the First Year they are still mostly in school uniform and carrying school bags but this will change. We've already gone through the phase of pairing up boyfriends and girlfriends and soon we'll get rifts between girls who have had tiffs over boys. As this happens the fashions start to change! First it is the bags, and then the shoes, and then what they wear. Really small differences are very important to them. It's not just a question of wearing tennis shoes, they have to be a special make and style.

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[11] In order to save space only a selection of prints are shown here. The full sequence ran to some twenty prints and two thirds of these were displayed on a large panel with more extended comments than I have included here.

[12] Intensity of interaction is identified as a deep structural quality of classrooms in the analyses of Jackson (1968); Doyle (1988) and others.

The head of department (a man) added the following comment when he saw the sequence:

> They're ever so interested in what you wear. I remember when I was on teaching practice here and I had a visit from my college tutor. She was sitting in the back of the class and part way through the lesson one of the girls went up to her and started playing with her jewellery and stroking her clothes - just like in this picture - almost absent mindedly.

This release of perceptions from the realm of the emic[13] illustrates well what John Collier (Collier 1967) has called the 'can-opener' effect. Even in conventional ethnography, photographs can speed rapport, involve people in the research and release anecdotes and recollections, so accelerating the sometimes lengthy process of building fieldwork relationships and locating reliable informants. There is a reciprocity in offerring photographs to people which provides an identifiable and acceptable role for the observer[14]

A second way of looking at this sequence has already been described in Chapter Four and focuses on Jonathan's story. Jane feels that she is failing to get to Jonathan because of the demands of Coral. She would like to deal with Coral quickly, get to Jonathan and get him back on task so she get step into her preferred preactive role of circulating around the class. Given this perspective she feels that Jonathan is wasting time in the queue, but Jonathan has a view of the curriculum that is somewhat more sophisticated than the view it has of itself. He is learning in the queue by monitoring the work being done by other students rather than simply following the linear track that the system allows him. Jane and Jonathan's different interpretations of the final photograph shown here are indicators of very different ways of looking at what it means to learn maths in the work environment created by this curriculum.

Ambiguity in research

I have outlined two ways in which we worked on the interpretation of a single sequence of photographs, and there are other ways of interpreting them that were raised within the project which we might have pursued in more detail. The point I want to make is that the photographs provide a source which is different from the notes normally used in ethnographic fieldwork in that they do have a independent life of their own. Of

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[13]The distinction between etic and emic is central to ethnographic description. It was first formalised by Kenneth Pike reflecting on the conflicts he encountered between his work as ethnographer (and ethnolinguist) on the one hand, and his experience as missionary (and translator of the bible) on the other. For an accessible account of Pike's terms, see Harris (1964), pp. 133-150.

[14]At the same time we were photographing in Jane's class she had a research student also visiting in order to carry out more conventional ethnography. After looking through the photographs she said, 'I can see what you are doing. I can get interested in it and so can the kids. J. (the other researcher) goes to great lengths to explain to me what he is doing and why he is doing it, but I don't really understand to the point where I can feel part of it." We don't know what Jane said to J. about us!

course there is bias built in as a result of the decisions Janine and I took in designing the study and in Janine's judgements about what to photograph, when and how. Photographs taken even a fraction of a second away from those we have, or from a different angle of vision, might have led us to different views as to what was happening. Nevertheless, once taken these questions have to be said alongside another set of questions which implicitly assign the photographs a quality of undeniability.

Howard Becker, sociologist and photographer, puts the point well:

> . . .whenever we interpret what we see in a photograph . . .we raise the question of truth, because we suggest an answer to a question that might in fact have a different answer. Because the questions arouse strong interests and emotions, people may disagree about whether the answers are correct, often suggesting that they are not because the photographs are biased, subjective or an unfair sampling. Many problems arise over ambiguity: a series of photographs suggests something is true: we do not deny it but think that something else is also true . . . there is no general answer to the question of whether a photograph is true: we can only say that the answer it gives to a particular question is more or less believable, keeping in mind that different questions may be asked of the same image.
>
> (Becker 1980, p. 26)

In the light of our experience, Becker's comment is obviously true, though it plays down the generative power of photographs to generate questions in the first place. What struck us, in this project and in others[15] is the readiness with which teachers, students and parents ask their own questions. My experience of conventional ethnographic methods is that this is usually very difficult to achieve, for people will assume that research is the concern of the researcher. They may feel intimidated by the language the researcher uses, or feel simply that it concerns questions that are not their questions.

This leads to a distinction that is made by John Berger between 'private ' and 'public uses of the photograph.

'Public' and 'private' photographs

A common sense view of photographs, often adopted in research, is that still photographs provide a record that is necessarily selective but nevertheless objective. Christopher Isherwood went so far as to adopt this view as an aspiration for the writer:

> 'I am a camera with the shutter open, quite passive, recording, not thinking . . . Some day all this will have to be developed, carefully printed, fixed.'
>
> Isherwood 1945, p. 7

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[15]For instance, Walker, Ingvarson & Borthwick 1981 and Walker & Adelman, 1975.

Isherwood's metaphor captures neatly the dialectical nature of the two sides of documentary photography, or come to that of ethnography: data collection and analytic writing. However, once we start to rethink these oppositions, seeing recording as less passive and analysis as more problematic, then the nature of the expertise needed to carry through a project changes also. John Berger, in several of his writings about photography, develops the idea that photographs are best thought of, not as records of reality, but in terms of their capacity to 'quote from appearances'. In a critical review of Susan Sontag's influential book, *On Photography*, he writes:

> Photographs in themselves do not narrate. Photographs preserve instant appearances. Habit now protects us against the shock involved in such a preservation. Compare the exposure time for a film with the life of a print made, and let us assume that the print lasts only ten years; the ratio for an average modern photograph would be approximately 20,000,000,000 : 1. Perhaps that can serve as a reminder of the violence of the fission whereby appearances are separated by the camera from their function.
>
> (Berger 1978, p. 51)

One consequence of the methodological violence that the photograph inflicts on its subjects is to create spaces between pictures and appearances, appearances and memory. Most of us, when faced with a photograph, or a set of photographs, have little difficulty in talking about the relation between the photograph and the event, especially if it was an event where we were present or where the people or places are familiar to us. There are different ways in which photographs can be read, but even the most naive viewer has no difficulty making a start. Unlike the written word, photographs carry little with them in the form of high cultural baggage, social class connotations or other pretentions. Berger would claim that this is due to the fact that the photograph is close to human memory. Susan Sontag makes a similar point. For better and for worse, photographs are a part of the vernacular culture. Perhaps our easy ability, indeed our compulsion, to talk about photographs stems from a need to close the gaps between the photograph as an image and our memories or assumptions about people, places and events.

Complex social settings, like schools and classrooms, are particularly appropriate as sites for photographic research. They are appropriate because our experience of them (as Philip Jackson has argued) is closely associated with our memories of childhood, but also because the very violence that photographs inflict on appearances is isomorphic with the fragments of experience most of us have of schools and schooling. I have argued elsewhere (Walker & Adelman 1975) that while photographs provide records of classroom events that are lacking in coherence, this incoherence is in itself characteristic of our experience of life in classrooms.

This social construction of meaning requires the researcher to enter the process by which individuals close the spaces between what is personal and what is social (and between what is agency and what is structure). 'All photographed events are ambiguous', writes Berger elsewhere, 'except to those whose personal relation to the event is such that their own lives supply the missing continuity' (Berger & Mohr 1982, p. 128). An important set of questions about photographs and the uses we make of them concern the relations between the photograph and human memory. When we talk about photographs, part of what we do is to construct or reconstruct shared memories. Voice, memory and biography are inextricably interrelated. The reading of a photograph is a. cultural act and one that allows the observer some glimpse of ways in which individuals create meaning in their lives. The narration that Berger finds missing in the photographic record is supplied at the point of view.

This leads to an important distinction that needs to be made between two uses and intentions for photography. There is is the public photograph which Berger says

> . . . usually presents an event, a seized set of appearances, which has nothing to do with us, its readers, or with the original meaning of the event. It offers information, but information severed from all lived experience. If the public photograph contributes to a memory, it is to the memory of an unknowable and total stranger . . . It records an instant sight about which this stranger has shouted : Look!
>
> (Berger 1980, p.51)

The public photograph is familar to us in the press and in art, it is also the staple of advertising, illustration and publicity. Quite different is the private photograph which, in contrast to the alienated object that is the public photograph, belongs within the realm of lived experience.

> The private photograph - the portrait of a mother, a picture of a daughter, a group photograph of one's own team - is appreciated and read in a context which is continuous with that from which the camera removed it . . . such a photograph remains surrounded by the meaning from which it was severed. A mechanical device, the camera has been used as an instrument to contribute to living memory. The photograph is a memento from a life being lived.
>
> (Berger 1980, p. 52)

One of the themes of this paper is that the distinction that Berger makes between 'public' and 'private' uses of photography parallels the distinction I made in the introduction between two ways of approaching qualitiative research[16]. The 'public' photograph, I believe, is similar to the quote, ripped from its context and relocated in a

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[16]Perceptive readers will also note parallels with the notions of 'emic' and 'etic' description as formalised in anthropology by Kenneth Pike (see Harris 1964).

text created by the author; a technique we conventionally use in qualitiative research. The 'private' photograph cannot be understood without engaging subjectivities, for to do so is, by definition, to return to the realm of the 'public'..

Once we begin to look at photographs as keys to memory, rather than as illustrative of social facts, their potential role in research becomes clear. We can use the photograph in the context of memory-work, as an instrument for the recovery of meaning, in a way that we all recognise when we think of how we view collections of photographs in the drawer at home. What is important is not the image in itself so much as the relationship between the image and the ways we make sense of it and the ways in which we value it. (John Berger's collaborator-photographer, Jean Mohr (in Berger & Mohr 1982) writes perceptively about the ways we value some images rather than others, and Susan Sontag (Sontag n.d.) makes a similar point in a film she made for the BBC about her book, *On Photography*.)

The power of the photograph lies to some extent in its exactness and precision, which lend it an undeniability, despite its acknowledged capacity to select and distort. The ways in which the camera 'sees' are very different from the ways in which we see things, but in that difference lie important keys to understanding the intersection of what is personal and what is social.

Why the distinction?

For evaluation and research the distinction between public and private uses for photographs has considerable importance. It provides the key to purposes that depend on developing uses for photographs that go beyond the positivist assertion that photographs provide a literal truth and it provides an alternative to viewing photographs as inert visual records. Part of the challenge for research I believe, despite what I said earlier about the use of visual material in science, lies in moving away from a conception of photographs as data. In using photographs in educational research, what is most often important is not the use of photographs in the process of producing data but the role of research in looking at their context of use. The questions are not about photographs as records so much as about the ways in which they are interpreted.

Similarly, photographs are often best used in evaluation as a way of engaging an audience in the process of evaluation. This form of engagement has long been an aspiration of evaluators, especially those who are concerned with what Barry MacDonald (MacDonald 1974) has called 'democratic evaluation', but in practice the kinds of participation required by participative models of democracy is very difficult to achieve.

As against print, photographs can be used to engage audiences in different ways, to disrupt the expectations that people may have about forms and channels of reporting, and to undercut the assumptions that they may hold about where power and authority lie in the relations between those involved. It is, for example, not uncommon for those in bureaucratic positions of power to be dismissive of photographs, for their use often touches on the investment that they have in the control of the word, especially the written word, as a way of maintaining, extending and reinforcing their position. Any uses of information that look likely to threaten this policing of language may be treated with suspicion. Most evaluators work primarily with numbers or with words and, whatever their intentions, these are both systems which tend to reinforce perceived hierarchies. In any text the reader and the writer are separated in ways that parallel the separation of teacher and student in a class. Numbers and words trigger responses of deference and demeanour effectively discriminating against the less well educated, the less articulate and the less numerate, especially when the context is public.

Of course photographs have the same potential to create the basis for manipulation, distortion and the exercise of authority, but for Berger's notion of the private photograph, which relocates ownership and authority in the process of interpretation, which confuses and complicates the relation between the subject and the object, which multiplies the sources of information brought to bear on interpretation and which threatens to mock any attempts that are made to impose singular views.

Practical ideas

There are many ways in which photographs can be used depending on the circumstances. Most of them depend crucially on the 'can-opener effect', that is the capacity of photographs to open up conversations between people. Collier, who first adopted the term, trained anthropologists in the use of photography and one of his key themes is the way in which photographs can be used to speed up the process of establishing fieldwork relationships, of getting to know people and to develop a degree of trust between outsiders and insiders.

Building on Collier's work, ideas I, various colleagues and students have found effective include:

- *using photographs as a basis for interviewing.*

Try giving people large numbers of prints of an event and asking them to sort them, this will give you some insight into their categories rather than yours. Extract photographs that seem to be particularly puzzling, or elicit particular responses and show them to others. Get some sense of the diversity of response, for instance, in schools

children often respond very differently to teachers and parents' responses are different again.

- *using photographs to get children to talk about life in classrooms and in schools.*

We have found that rapid sequences are particularly useful, that 'clearing up' time photographs at the the end of the lesson are often very revealing and provide a natural opportunity for people to talk about their responses to the lesson as a whole.

- *using photographs to get people to write.*

Photographs are effective as a stimulus for writing. In assembling displays of photographs we have found that people are as interested in seeing what they and their friends have said as they are in the pictures themselves. This is especially true of students, who often have very different perceptions of events.

- *using photographs as a means of exchange between people who have never met.*

At Deakin University, we routinely get teachers in distance education courses to exchange photographs of themselves teaching in exchange for commentaries on the photographs written by someone else on the course. Howard Becker, an American sociologist and photography teacher gets photography students to exchange exposed but unprocessed film with students on another course elsewhere, each student then has to process, print, select and display the work of someone else. This separation of the 'taking' of photographs from their presentation is superficially like the situation that exists in newspaper production but, as we use it, the emphasis is on exploring the ways in which meaning is constructed rather than on imposing one interpretation over another.

- *using polaroid photographs of people as the basis for making finger puppets.*

An idea developed from play therapy, this is a good alternative to asking young children directly to recall what happened in a play or a film, as well as having a creative capacity in itself.

Voices

Earlier I introduced the notion of 'voice' as intrinsic to interpretive research. It is a notion that presents an important challenge to qualitative research, for in some ways the terms 'research' and 'voice' seem at odds with each other. In the sense that research is systematic enquiry made public (Lawrence Stenhouse in Rudduck & Hopkins 1985), researchers are under some obligation to establish conventions, principles and procedures that make what they do accessible, which in turn implies a degree of consensus and conformity, and even uniformity. On the other hand, the notion of 'voice', carries the contrary expectation of a personal view. When we read a case study by a particular author we come to it with certain expectations about the interests,

preoccupations and style of the writer. If we were able to replicate case studies or ethnographies by sending multiple observers into a single site, we would expect marked differences in the results that derived from the author as much as from the site.

The assumption that the ethnographer is inscribed in the ethnography is not a new one. Anthropologists often quote a classic instance in cultural anthropology, where two researchers studied the same Mexican village (Redfield 1930 and Lewis 1951). Time and other variables apart, the images and preocccupations that emerge from each study are very different. Where one author found harmony, the other found conflict. Oscar Lewis writes:

> The impression given by Redfield's study of Tepoztlan is that of a relatively homogeneous, isolated, smoothly functioning, and well integrated society made up of a contented and well-adjusted people. His picture[17] of the village has a Rousseauan quality which glosses lightly over evidence of violence, disruption, cruelty, disease, suffering and maladjustment. We are told little of poverty, economic problems or political schisms. Throughout his study we find an emphasis upon the co-operative and unifying factors in Tepoztecan society. Our findings, on the other hand, would emphasise the underlying individualism of Tepoztecan institutions and character, the lack of co-operation, the tensions between villages within the municipio, the schisms within the village, and the pervading quality of fear, envy and distrust in inter-personal relations.
>
> (Lewis 1951, p. 430)

Oscar Lewis explains part of the difference in view between himself and Redfield in terms of history and social change, part in terms of their focus on different questions and part on the different degree of intimacy they each had with the site, but some of the difference can be seen in terms of different voices. Redfield, Lewis points out, chose to ignore some things at the expense of others:

> Redfield presented only the positive and formal aspects of inter-personal relations . . . .he failed to deal with some of the negative and disruptive aspects of village life, such as the fairly high incidence of stealing, quarrels and physical violence. An examination of the local records revealed that in the year Redfield lived in the village there were 175 reported cases of crime and misdemeanors in the local court. Most of these cases were offences against persons and property. Since not all cases reach the local authorities, this number is indicative of considerable conflict.
>
> (Lewis 1951, p. 430)

Furthermore, it is not just selective reporting that leads to the formation or support of a viewpoint: it is built in to the language of description, notice the use of the word 'picture' in the initial quote above. Lewis observes:

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[17]Note the visual allusion!

> Redfield described local politics as a game, but we found that politics was a very serious affair which frequently led to violence. The year Redfield was there, the political schisms culminated in open violence bordering on civil war, and it was this situation which finally resulted in Redfield's leaving the village. .
>
> (Lewis 1951, p. 430)

Generally, it is clear that selection at a number of levels, including identifying a site, locating reliable informants, finding social situations in which one can engage with ease, through to the language of reporting, are all factors in the construction of 'voice'. And, despite its apparently mechanical nature, photography is free of none of these. As well as having a grammar of its own, photography has a specialist set of sources of judgement including framing, cropping and the elusive concept of the 'proper moment'. As Susan Sontag put it:

> The photographer was thought [in the early days of photography] to be an acute but non-interfering observer - a scribe, not a poet. But as people quickly discovered that nobody takes the same picture of the same thing, the supposition that cameras furnish an impersonal, objective image yeilded to the fact that photographs are evidence not only of what's there but of what an individual sees, not just a record but an evaluation of the world.
>
> (Sontag 1979, p. 88)

Once we start to look on photographs as having a 'voice' (or more accurately a 'view' or a 'vision'), then it becomes possible to ask questions about the relation of the photographer to both the object and the subject of the picture. Such questions quickly lead to questions that are familiar to social scientists, questions about objectivity and subjectivity, representiveness, reliability, validity and generalisability. These questions are often described as though they were simply technical problems, capable of reasonable resolution, but in practice they often appear as moral dilemmas, concerned with selection, framing,judgement, risk and making one interpretation rather than another.

Real schools

As researchers, we have a tendency to assume that questions about the reliability or validity of voices are essentially technical, not moral, questions. We too easily forget the achievements of ethnomethodology, and its demonstration that they are issues for us all, and not so much technical as close to defining our sense of identity (classically by Garfinkel 1967). Photographs, exemplify the ethnomethodological processes of 'remedying' and 'filling-in', for they exist on the boundary between what is familiar and what is unknown. When we look at a photograph the picture acts as a window to a dictionary of meanings, a picture of a school or a classroom causes us to search a range of memories in order to locate this specific instance which is essentially unknown to us.

We are aware, in looking at a photograph at possibilities that lie just beyond our horizon of recognition and familiarity.

Susan Sontag has pointed out that the taking of a photograph is not simply the mechanical process it sometimes seems but is capable of generating surprises. Likewise, photographs are not just about the things that they portray but also about the ways in which we make sense of them. Looking at pictures of schools and classrooms challenges the assumptions we make about what a 'real' school or classroom looks like.

The notion of 'real school' as a significant concept in educational debate has recently been described in a novel and interesting way by Mary Haywood Metz (Metz 1990). In a study of the ways in which eight schools were responding to attempts to introduce change through policy-making, Metz points out that educational reformers 'assume a common script'. They write about schools as though they were single and singular institutions, and indeed, in her research, it appeared true that schools were very similar in many ways; in the work of teachers, in the use of textbooks in instruction, in the ways in which they organised time and space. But equally, there were many respects in which the schools were idiosyncratic, especially as a result of their need to adapt to local circumstances.

Metz found this puzzling, for while her overwhelming impression from the fieldwork data was of the differences between schools this seemed unrecognised by many of those trying to bring about change:

> . . .this variation rivetted our attention as we moved from school to school . . .[but]. . .we puzzled over the discrepency between our diverse experiences and the reformer's assumption that schools are standard . . .
>
> (Metz 1990, p. 76)

Metz came to explain the discrepency between aspiration and achievement in the schools in terms of the notion of 'real school'. 'We felt we were watching a play. The title was 'Real School' (Metz 1990, p. 83). The common script, she argued, held together a symbolic system and a crucial set of values, even in the face of real variations in provision, experience and achievement. The notion of 'real school' allowed teachers and others to live with a singular image of schooling in the face of local adaptation within a system that is ideologically unified (the US, unlike Australia and Britain, generally has public faith in public education). Whenever she pointed up ways in which particular schools did not appear to be meeting general standards, people would say things like, 'You have to be realistic'.

Looking at photographs creates a similar sense of contradiction between image and appearance. A tension is created between the image and the picture, between what we expect to observe and what we see. 'Real school', in Metz' research is not just an artifact of qualitative methods but provides the images that make it possible to maintain a rhetoric or an institutional facade of equity in the face of significant evidence to the contrary. Images, we need to remember, are not just adjuncts to print, but carry heavy cultural traffic on their own account.

SECTION FOUR
CONTEMPORARY DEVELOPMENTS IN CURRICULUM AND TEACHING

Progressivism makes the product of oppression, powerlessness, invisible because within the naturalised discourse it is rendered unatural, abnormal.
Valerie Walkerdine 1987

This section provides a critical perspective on two concepts that have been taken for granted to this point, school science and the notion of the classroom.

Chapter Ten
The Limits of School Science: The Drug Problem and Drug Education
The 'drug problem' is used as a case in which to question the assumptions that the school science curriculum has adopted from university science. 'Drugs' can be studied from a science perspective, but to do so is to miss much that is socially significant. An applied approach views the issue quite differently, but this seems to be very difficult for schools to do.

Chapter Eleven
The Media, Open Learning and the Classroom.
Recent and current developments in information technology, publishing and the media have set the scene for a radical change in the process of education. The classroom may disappear in the face of developments in open learning and the media. This chapter takes the case of distance education in higher education as a case from which to develop this argument.

Chapter Ten

THE LIMITS OF SCHOOL SCIENCE: THE DRUG PROBLEM AND DRUG EDUCATION

> *A concept of science drawn from [science textbooks] is no more likely to fit the enterprise [of science] that produced them than an image of a national culture drawn from a tourist brochure.*
>
> Thomas Kuhn (1970)

In the past thirty years there has been significant change in the nature and content of science curricula. Prior to the 1960's the general pattern, in England and Wales, was one which saw very little science in primary schools except for some 'nature study', some general science and agricultural science in secondary modern schools and a science curriculum in the independent and grammar schools which was preparatory to university science.

This tradition was carried through in the first generation of Nuffield Science projects. Nuffield Primary Science, Secondary Science and the O and A level projects each attempted to celebrate the best practice to be found in the existing system, to update and extend it . But as the project materials became available they found themselves in a new organisational context created by the introduction of comprehensive secondary education. The curriculum espoused by the Nuffield Projects had to be adapted by teachers, those teachers centres, teacher education, the professional associations and local authority advisers.

The process of adaptation fed back into later curriculum projects. First, the clear separation of the science disciplines assumed by the early projects began to fade as a feature of school science curricula. The first boundaries to dissolve were the most specialised, for example many independent and grammar schools in the 1960's offered separate A level courses in botany and zoology. As these distinctions began to dissolve in the universities, especially in the new universities of the time, which nearly all offered broader based degrees in biological science, so schools moved to introduce integrated biology courses. This move was accelerated by changes within the disciplines which can be characterised as a move from description to theory; thus classification began to give way to genetics, molecular biology and ecology as organising principles. While some teachers initially saw this as simply a matter of adding new topics to the syllabus, it soon became clear that the nature of the disciplines was itself under question.

Second, these changes, which originated in undergraduate and postgraduate degrees began to take effect in schools as a new generation of science teachers appeared. Teachers trained in the 'new biology' of the sixties and seventies found themselves

teaching in secondary schools as the comprehensive system was emerging. They quickly adapted to new circumstances and many found themselves quickly promoted to head of department positions, to advisory posts and college lectureships.

Third, the school science population began to change. Before 1960 most students did not do science beyond an introductory level but the introduction of comprehensive schooling extended the science curriculum to everyone. This in turn led to the development of interdisciplinary and multidisciplinary courses which delayed specialisation until later in the secondary school.

More recently there have been other changes which have had an impact on school science. Changes in the employment opportunities for scientists have seen a shift away from high level, but routine specialist technical jobs like chemical analysis as analysis has become increasingly computerised; a growing demand for scientific managers and administrators has arisen in industry, commerce and the public service, as well as a demand for scientists as journalists, publishers and in a range of other jobs. More recently, increasing public concern about a range of environmental and health issues has both changed public conceptions of science and created the need for a broad-based 'scientific literacy'.

The emergence of the national curriculum in Britain, and similar moves elsewhere, have drawn on these general public concerns to establish science as a central area in the curriculum of primary and secondary schools. The long battle to establish science as a central element in a liberal education, which began in the independent schools in the nineteenth century, appears finally to have been won.

To talk of science gradually establishing a role for itself in the school curriculum is to underplay the fact that the curriculum has had to bend under the pressure of these changes. So long as science was a minority subject in the independent schools and grammar schools, it could sustain itself as preparatory to university study. Once it became a core part of the national curriculum this definition inevitably became contested.

One of the key features of the past thirty years has been a shift away from the intellectual and conceptual base of the disciplines as the organising mechanism for the science curriculum towards a greater emphasis on applications and consequences. This is to point science curriculum in the direction of a more social (and economic and political) perspective which is normative rather than positive. This shift, which is only beginning to take effect, provides science curriulum with a major challenge which touches on values that are central to the way that science defines itself.

In this chapter I want to examine a critical case which offers a clear challenge to the conventional science curriculum, the case of drugs and drug education. Drugs might sound a peripheral topic in science, but I argue that this is not the case. In terms of the conventional disciplinary view of science drugs provide a more important topic than is often recognised. The process of fermentation, for example, provides a key to understanding the history of biochemistry amd microbiology (Jevons 1964), much of organic chemistry derives from drug research, pharmacology and physiology have always been closely related and the broader boundaries between medicine and science have a long history of interaction. In terms of modern science curricula, drug issues tend to be held at arm's length and usually treated as an experimental procedure rather than explored in its social and industrial (and economic) context.

Most secondary science curricula include some work on smoking and health and it is here that some of the problems science teachers face in dealing with social issues come to the surface. Typically, teachers approach the subject of smoking experimentally, by demonstrating the tar content of cigarettes. Often this will be followed by some discussion of the statistical relationships between smoking and mortality and morbidity figures. This in turn may lead to some discussion of personal decisions about whether or not to smoke, but at this point many teachers begin to feel uncomfortable or out of their depth and move to another topic[1].

This kind of lesson indicates a degree of uncertainty. It appears caught between the conventional, discipline-based assumptions with which science teachers tend to feel most comfortable and their perception that science teaching needs to take on issues that are perceived to be 'real' in the lives of students. It exemplifies the approach of starting with routine procedures and trying to reach out to real problems, or of trying to squeeze the problem into forms of solution that are well-known and well-understood. This in turn provides the opportunity (rarely taken) to explore the limits of science and particularly the limits of the scientific method as it is normally taught in schools.

This is curious! For many science curricula (and many science teachers), when asked to justify the status of science as a central element in curricula, will point to the scientific method as one of the contributions they can make to a general or liberal education. Given a case where scientific method touches the envelope of its limitations this discussion becomes possible but teachers tend to shy away from the opportunity. Yet all the curriculum ingredients are there! The long interactive histories of medical and science

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[1]The treatment of the topic in Nuffield Secondary Science is typical of what can be found in many schools and includes some good advice on how to manage discussion in class.

research, the exemplary social statistics relating smoking to death and ill health plus the overwhelming public interest and concern about drug use among the young and the natural curiosity of students themselves. The problem seems to be that science teachers feel out of depth in the face of a difficult problem. It is clear that this is a case where the enquiry approach that many progressive teachers espouse needs to be re-thought, moral uncertainty floods to the surface and the topic threatens danger to the inexperienced. Yet a science curriculum that builds on a commitment to application, relevance and social and economic factors, needs to find ways of handling it.

The problem

This chapter was first conceived as a description of drug education programs in schools, in the attempt to provide some accounts of the ways in which teachers and schools were managing these dilemmas. In the event these descriptions[2]led in many directions and defied condensation in terms of this argument, for once we step out of the curriculum frame and attempt to face the problem, the problem itself appears changed. This chapter follows this argument in order to provide a frame from which to rethink possible directions for the science curriculum. The argument is that teachers cannot adequately approach issues like that posed by drug use without rethinking their roles as educators and the educative role of the school as a social setting within which students live a segment of their lives.

Education and the drug problem

Whatever our experience as teachers, there seems little doubt, that in the press and in the public imagination, drugs figure as a major current problem and that schools are seen as positioned in the front line. While this may not match with the experience most of us have as teachers and parents, there is some truth in the view that drug use is both significant and endemic in our contemporary world. In Australia more than 25,000 Australians die each year as a consequence of drug use, and thousands more encounter difficulties with their health, with their personal finances and as the result of drug-related violence.[3]

The image we have from the media is that drug abuse is part of a complex set of related social and moral ills[4]. It is evident that drug abuse is associated with criminal activity,

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[2]The descriptions were carried out as part of an evaluation of the Drug Education Program at the Geelong Centre for Alcohol and Drug Dependence, Victoria, Australia between 1985-1991. Eight case studies were written and published.

[3]*Statistics on Drug Abuse in Australia* (1989).

[4]Although drug stories are a major concern of journalists and editors, there is very little research available on how the media have approached the issues. This is especially surprising in Australia, where the investment of various national campaigns in media advertising (especially in broadcast television) has been extensive. There is of course considerable 'private' research in relation to some of the major health promotion campaigns, but this appears to be mainly concerned with identifying target audiences and assessing their responses, rather than with looking at the overall relationship between drugs and the

both on the part of drug users and by organised crime, it is associated with too much money and too little, with competition, fashion and success. Less obviously, the trade in drugs is a major element in the economy. Some reports estimate that illegal drugs overtook oil as an international trading commodity some years ago and are running the arms trade a close second. If you count the costs of health care, reduced productivity and law enforcement, the costs of drug abuse are truly staggering. One estimate put the cost to the USA (in 1988) at between US$60.4 billion and US$124.9 billion p.a., while another study estimated the minimum cost to Australia at more than A$14 billion for 1987 (Collins & Lapsley 1991).

It is hard to avoid the fact that non-medical drug use presents a major contemporary social problem. Read any newspaper, in any country in the world, and the chances are that you will find a prominent drug story, and the news is invariably bad. A major drug seizure gets headline treatment; a prominent sporting figure is barred from competition; drug-related violent crime is identified as linked with police corruption.

As drug stories have become a dependable theme in the minds of newspaper and magazine editors, so politicians looking for press attention will tell their speech writers to address the 'war against drugs' (Collins & Lapsley 1991). The modern urban myths that they draw upon include the themes that drugs are associated with the lifestyles of the rich and famous, that truck drivers use drugs to stay awake, that drugs are commonly used in both professional and amateur sport and that drugs are sold and used in schools. True or untrue, so regular and persistent are the stories that their messages have become part of the backdrop to modern life.

What does this mean for education? And in particular what does it mean for those who teach or work in schools?

The shift of attention to the role of schools appears to have come about because everyone else has failed, rather than because schools have positive solutions to offer. The political and policy response to the problems that arise from drug abuse has been

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media. Hanneman & McEwan (1976) attempted to locate all references to drugs and drug use in a selection of newspapers and all broadcast network television over two, two week periods in April and November 1973 in the town of Hartford, Conneticut. Their survey included news, general stories/programs, entertainment and advertising. (Interestingly, sport is not mentioned in their account). In Australia, White has carried out a similar survey (White, 1985). During a period of several weeks, in 1984, he collected 2468 press stories and 702 television stories appearing in the Sydney media. Philip Bell (1983, 1985) has also made a content analysis of press stories concerning drugs, but goes on to suggest that there is an underlying structure in the assembly of drug stories that depends on identifying a 'hero', a 'victim' and a 'villain'.

passed, successively, from law and law enforcement, to medicine, to health, to social work, to therapy, to advertising and, increasingly, to the schools. This has paralleled a successive shift from the hope that drug abuse can be eradicated, to a view that it can be treated, to a view that it can be prevented, to a view that it can be controlled.

Supply limitation

The usual first response of governments to the drug problem is to adopt legal prohibition, a move that is often modified through a series of policies that are referred to as 'supply control' strategies.

As a first response to the problem this seems rational, but in practice it rarely works as intended because the real problem is often very different to the espoused problem. The process of criminalising a drug is complex and not without surprises, an interesting case being that of heroin. Heroin was actively promoted as a pharmaceutical drug for suppressing coughing in the U.S. in the 1920s , used legally and quite extensively in Australia until the 1950s, and is used still (for pain control) in Britain. The decision to prohibit heroin use in America was taken over several decades and the complexities of the debate are well told by Arnold Trebach in his definitive account (Trebach 1982).

The progress of heroin from, as Trebach puts it, 'Advent, canonisation to demonisation' is too involved to recount here, but one point is important to note. Why was it, asks Trebach, that when the government began to legislate for drug control around the time of American entry to World War 1, the opiates became singled out for special attention?

Part of the answer, he suggests, lies in the fact that the drafting of men into the army uncovered a range of health problems, of which addiction was one. But there seems to have been more to it than that. Trebach writes:

> The reasons for the public attention to heroin are . . . hard to divine. One plausible explanation is that America's entry into World War I signaled the start of a period of agonising social stresses and tensions. It was, in a way, the end of a period of isolation and innocence and the beginning of an era of fears about foreign involvement, German atrocities, Communist conspiracies, and crime and violence in the city streets. As Dr Musto observed in 1974, 'The crucial factor in heroin's transformation does not seem to have been in the incidence or character of heroin use in 1917, but rather the context in which the phenomenon was interpreted. In 1917, the United States harbored a climate of ambiguous fear, which coexisted with the nation's desire to react unanimously in order to preserve the world's freedom. The battle was not against an enemy of the United States, but against the enemy of mankind.' In this context it might have seemed acceptable to some officials, Musto reasoned, to deliberately exaggerate the number of heroin addicts and the danger they presented to society - so long as the result was greater unity among the citizenry in order to save America from a

> whole catalog of new threats. 'The drug was one more convenient object on which to place the blame for social disorder'.
>
> (Trebach 1982, pp. 44-45)

As we shall see, the close inter-relation of drug issues with broader issues of politics and social control is a continuing feature of the drug story. One of the reasons that individual professions have been unable to arrive at solutions has been that they have found their actions caught by the spotlight in the larger political drama. Legal prohibition was not introduced with thought for the effects it would have on users so much as for the symbolic value of the act on the rest of us.

The decision to make a drug illegal is not simply a legislative decision. Making a drug illegal has far reaching economic consequences, and the economics of the illegal drug trade are not insignificant. When drugs are made illegal, the market usually moves to high value/low bulk substances. Examples include the shift from opium smoking to heroin injection (this happened in Nepal in the last decade), and the shift to spirit drinking in the USA during Prohibition.

A cycle is established, one outcome of which is to provide a growth market for crime and corruption. Legal prohibition creates the ground for the move to a high value substance which is easy to import, trade and market; the official response is invariably to introduce harsher penalties for trafficking, tightening up customs procedures and the expansion of policing (often including the setting up of special police units). Thus the stage is set for the development of a well-integrated drug economy.

The policy of supply limitation is usually coupled with the development of treatment programs, in some cases punitive and custodial, in others therapeutic. Thus mutual dependencies are established, for, from a policy perspective an important effect of supply limitation is to set the ground for the growth of both an illegal supply industry and a legal containment and treatment industry: projects which appear to be in conflict but which, in fact share a mutual dependency.

What we have seen, in the U.S., Europe and Australia, since the World War II is a shifting balance between legislation and treatment, a balance that has often been played out in suprising ways. In the U.S., President Nixon was, as one might expect, a great source of drug-war rhetoric, but in fact presided over a remarkable expansion of government finance for treatment programs. Jimmy Carter, on the other hand, spoke of liberal possibilities for treatment, but redirected funding to law enforcement.

Supply limitation has been the dominant pattern in most countries in the last four decades, but there are no great successes to report. At best, 10% to 12% of drugs in transit from one country to another are seized (comparable to wastage rates in many legal trades). Some argue that the high value created for the product limits usage to those who can afford it but this argument does not take into account the considerable social cost to be paid in the expanded opportunities created for corruption.

It is interesting to note the paradox that the trade in illegal drugs has been more effective and more efficient in moving to the trade in value-added goods than straight industry, even though the latter is constantly exhorted by government to do so.

In recent years we have become aware of a second significant cost that is indirectedly encouraged by legal prohibition - AIDS. When drugs are relatively easily available, the preferred form of self-administration appears to be oral ingestion, inhalation or smoking. In the Netherlands, for instance, which has relatively liberal legislation and long established trade routes with Asia, opiate users are commonly known as 'Chinesers', because they have adopted the traditional Chinese habit of smoking opium. Compared to heroin, opium is a relatively high bulk/low value product. As supplies become difficult to obtain, the tendency is for importers to move from opium to heroin, and for users to move from smoking to intravenous injection. In the Netherlands this move has been exacerbated by the arrival of drug users from other countries, particularly what was formerly West Germany, which has well established punitive legislation. The coincidence of these changes with the arrival of HIV creates a story that can be retold with variations in other places. The basic narrative is that the more expensive the drug, the more disruptive it is in the life of the user. It creates the basis for income-motivated crime and exposes the user to health risks through infection and death through accidental overdose, thus exacerbating the impact on families, on work and on communities.[5]

There is no question that supply limitation has had effects, but not always those that were intended. It is no accidental coincidence that the flowering of the cocktail repertoire can be traced to the Prohibition era in the United States.

This is not to argue directly for the legalisation of narcotics, though I believe a good case can be made for doing so, but it is to argue that attempts to make the problem go away by acting through the law have often not had the effects that were intended. Such

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[5]The relation between drug use and the need for income was well understood by those British civil servants who introduced alcohol to South Pacific islands in an attempt to create plantation economies. In an ecology that is self-sufficient, needs have to be created.

well-meaning attempts have often transformed the problem into more insidious, subtle and dangerous forms[6].

Demand limitation

As supply limitation has been found to have limited, and even counter-productive effects, governments (particularly in the West) have turned to policies which are intended to encourage 'demand limitation'. The argument goes, if we cannot control the drug problem by reducing the availability of drugs, then we need to act to reduce consumer demand. Often this is expressed in terms of a need, not to do one or the other, but to do both. Recent speeches by President Bush, for example, appear to retain all options but suggest a marked shift in emphasis towards demand control.

Reducing consumer demand, we know, is difficult enough in the visible economy. How do you reduce demand for illicit drugs? One answer that continually surfaces in political speeches and in leading articles and editorials of newspapers, is through education.

So, the problem has come to rest for the moment, with education and education professionals. Supply limitation has not worked, treatment can rescue some but, so the argument goes, the key to the problem may lie in using schools to create a drug-free society within a generation. As with AIDS, looked at rationally, the solution to the problem looks to some to be simple. 'Just say No', said Nancy Reagan, to be echoed recently in a fund-raising campaign by the Australian Life Education Program.

Politicians and the press

Nancy Reagan, incidentally, can be credited with giving the drug education issue a high public profile. In February 1982, accompanied only by a dozen secret service officers, 20 members of the White House Press Corps and three aides, she made a two-day tour of drug treatment centres in Texas and Florida. It was only her second trip in the role of First Lady, the first having been to attend the marriage of Prince Charles and Lady Diana in London. During an informal press conference on board the air force jet, she was asked if she felt like a crusader. 'Yes I do', she replied, 'because we are in danger of losing a whole generation'. Later she was quoted as saying that the drug problem among young Americans had reached 'epidemic proportions'.

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[6]A useful and recent summary of the legal issues is available in the reports of a conference, 'Drug Control: Legal alternatives and consequences'. The conference was held in Melbourne in 1989 and copies of the reports are available from the Victorian Drug Rehabilitation and Research Fund.

Some of the more cynical members of the press questioned her motives, for she had been under some criticism for the rate at which she ordered designer gowns, and for money she had spent on redecorating the White House, most recently spending $209,000 on a new set of china for use on state occasions.

Despite press cynicism, her trip did succeed in bringing the drug issue to public notice. A single television appearance in Florida led to 17,000 requests for information. 'Super, fabulous!', said her press secretary, Sheila Tate. 'Everybody is focusing on the issue and the problem, and that is exactly what we wanted them to do!'.

Sociologist James Beniger (Beniger 1983), who recounts this story in the preface to his analysis of the professional response to public concern about drug abuse, notes that the Reagan visit coincided with the publication of a *National Institute on Drug Abuse* report which showed that illicit drug use among high school students had dropped sharply after a dramatic rise in the 1960's and 70's. Despite Nancy Reagan's rush of concern, the main increase in heroin use in the U.S. had taken place more than 10 years earlier, when there had been a tenfold increase in 'new users' in the seven years from 1965 (*White Paper on Drug Abuse* 1975; Johnston, J D, O'Malley P M, Bachman J G 1987). Since then usage appears from the available statistics, to have diminished. It would seem that the problem and the political response were out of step with one another, something that seems to be a feature of public concern about drugs.

This push-pull relationship between the problem and political response can be seen too in Australia, for during the Vietnam War there was serious concern about the use of drugs among young people, but by the time this concern was translated into policies and programs the problem itself already appeared to have diminished. Everything was quiet until Bob Hawke's emotional press conference and the establishment of the 'Drugs Summit' in 1985. Just as the problem appeared to be waning, ill informed political rhetoric led to a fresh burst of enthusiasm to create new policies and new programs, the kind of invitation neither the press nor the professionals can ever refuse.

In the U.S., despite Nancy Reagan's success in deflecting the interest of the press in her public expenses, her efforts to raise the visibility of drug prevention appeared to have little influence on the President. President Reagan introduced major cuts in programs established originally by Nixon. More recently Bush has revived the rhetoric and some of the funding.

Perhaps, the political problem was not quite what it seemed - remember Arnold Trebach's cautionary note about the reasons why heroin was made illegal at the same

point in American history as decisions were made to enter World War 1. Perhaps, as Gore Vidal has suggested, the real purpose of the Cold War was to justify constant invasions of civil rights and now that the Cold War is over, the 'war against drugs' has replaced it as a device for limiting the constitutional rights of American citizens.

Drugs and education

Clearly the 'drugs problem' provides a useful resource and valuable vehicle for politicians, just as it does for professionals. As James Beniger puts it, rather cruelly, we traffic, not in drugs, but in drug users.[7] As the wave of public concern and political attention about drugs picks up education, we need to examine our own motives and interests and not use the movement that is created simply to further our personal or professional interests.

Stepping back from the way in which policy has come, for the moment at least, to light on the schools, it is not immediately obvious why politicians and policy makers are looking to education to succeed where other institutions have failed. In the context of drug problems, schools seem, on the face of things, to be a strange attractor. After all, schools are usually seen by politicians as a source of problems rather than as a source of answers, and of all the social problems that societies like ours need to adress, drug abuse would appear to be the least amenable to simple resolution (if schools fail to teach kids to read, how are they going to manage a problem like drug abuse?). Perhaps it is just because it is so difficult to measure outcomes and effects that drug education appears to provide safe political ground; because evaluation is inherently so difficult, drug abuse provides politicians and the press with a rich garden of myth and metaphor. For the journalist and the political speech writer, the villains, the victims and even the heroes and heroines are easily identified and have little chance of answering back. The 'War Against Drugs' has become a safe bet as a key element in the rhetorical arsenal of political posturing, as even motherhood has become a sensitive topic. Perhaps the answer lies deep in our culture where, as Willard Waller pointed out 60 years ago, schools play a significant role as 'museums of virtue' (Waller 1932).

And for the professionals? Drugs looks to be a relatively safe source of funding as they present a problem that will not go away. You might even say that we have a vested interest in making things look worse than they are, and in exaggerating the difficulties of improvement, for the longer we can prolong our failure to ameliorate the problem, the longer we can spin out the funding.

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[7] This is the dominant theme in Beniger's book (Beniger 1983).

What can the schools do?

What are the consequences for the schools, now that the problem has been handed to them? The law has failed, the police have failed, social workers and therapists of various persuasions have failed. What is it reasonable to expect schools and teachers to be able to do?

Almost universally, the response has been a curriculum response. What we have seen in the last six or seven years has been a flowering of curricula in the form of kits, tapes, posters, videos, games and training programs. Go to any conference on drug education and you will find a space set aside for people to display their wares, and most of it is well produced, attractive and well thought out. In the classroom, most of it works. Those who have sponsored and produced material include ministry curriculum staff, the Quit campaign, the road traffic authorities, the pharmacists' professional association, police, educational publishers and the Life Education Program.[8]

Looking at this material a number of things stand out:

- The problem is clearly identified as lying with legal rather than illegal drugs.
- A predominant emphasis is on developing social, personal and decision-making skills among students.
- Three key audiences are identified: primary school-aged children, for general drug education programs; 16 and 17 year-old males for drink-driving programs; early adolescence (especially girls) for smoking prevention programs.

Why the emphasis on legal rather illegal drugs? One of the things that has happened to the drug problem as it has been passed from law enforcement to health professionals is that the problem itself has been transformed in important ways. This is especially the case in Australia, but also in Britain and some other European countries.

I quoted earlier the figure of more than 25,000 deaths annually as a direct consequence of drug abuse in Australia. More than 70% of these deaths are among middle aged and older people as consequence of tobacco smoking. More than 25% can be directly attributed to alcohol. In 1989, 323 deaths were identified as caused by opiates, of which less than 200 were a consequence of drug dependence.

As a teacher facing a class of children in a typical Australian school (any Australian school) the chances of serious harm coming to any student as a result of drug abuse lie almost entirely with legal drugs. The risks are with smoking, which will take its toll later

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[8]For an account of Australian efforts in developing drug education see Gillespie (1992).

in life and alcohol abuse which has similar long terms risks, but which may also affect the young directly as a result of road accidents, accidents in the home, domestic violence, family break-ups and financial crises.[9] Other legal drugs which may affect students' lives are the minor tranquillisers which have been carelessly prescribed by some doctors, particularly to women, and various solvents, including petrol.[10]

Even when we look at the exotic, illegal drugs, there is a strong case for claiming that the risks are not as great as we have been led to believe. Heroin, unlike alcohol, is virtually non-toxic, the greatest pharmacological risk coming from street sources which leave the user vulnerable to accidental overdose. Long-term users of heroin with regular access to clean and controlled sources appear to suffer very little long-term damage, physiological or psychological as a direct use of their habit. Indeed alcohol may be more dangerous and more damaging, even to the moderate long-term user.

This shift in emphasis in the way that the drug problem is defined, away from illegal to legal drug use, marks a dramatic shift in thinking which has considerable implications for teachers and educators faced with what looks to be an intractable problem. It has been brought about by the efforts of a relatively small group of health researchers and health professionals, particularly in Britain and Australia.

For teachers, educators and schools, basing a drug education program on the dangers of legal drugs means that rather than being involved with simply reinforcing a message that most parents will share, teachers find themselves taking a point of view that puts them in conflict with attitudes and values that are an implicit part of the culture. When President Bush (among others) said that he saw schools as being in the 'front-line of the War Against Drugs' he did not know the significance of the remark. For teachers to engage in drug education means putting themselves into an area marked by contentious social values. It means running against the grain of many media assumptions and it means putting their own ways of life up for scrutiny, often in the face of hostility from other teachers, parents and the community. This issue is sharpened in a context where policy initiatives stress the needs for schools to be responsive to their communities, and where parents in particular may be placed in positions where they can directly influence decisions about curriculum and school organisation.

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[9]In 1989, alcohol was responsible for 65% of the more than 1400 drug-related deaths among people aged 15-34, over half of these deaths being related to motor vehicle crashes. Source, *Statistics on Drug Abuse in Australia.*

[10]Another way of expressing the figures is in terms of years of life lost from deaths caused by drug abuse. The Commonwealth Dept of Community Studies and Health figures for 1989 show 51% of years lost as due to tobacco, 40% due to alcohol, 5% due to opiates and 4% to other drugs. *Statistics on Drug Abuse in Australia,* p 37.

As curriculum decisions become more politicised, one of the first things teachers need to ask themselves when they take on drug education, is whether they are more likely to be part of the problem than part of the answer. They have to examine their own patterns and habits of drug use, perhaps even their own dependencies. They have to ask themselves what models they provide and attempt to identify what forms of resistance they are likely to provoke in their students.

Curriculum or schooling?

I mentioned earlier that the way education has responded to being handed the drug problem has been to develop curricula. This solves the immediate practical problem of knowing what to do but it is not without its difficulties, especially in secondary schools. The initial problems of deciding what to teach, to whom, when and how, are quickly followed by further questions. Where is it to be placed in the timetable? Who will teach it? Will it be assessed? There is little uniformity in the answers that schools have devised for these problems and little shared experience among teachers. Given the variations and short life of most programs, some evaluators have concentrated on the problem of describing what is happening, to the frustration of others who see value only in measured differences in the short-term between pre- and post- tests of attitude and behaviour.

The question we have almost all avoided is whether schools are able to bring about the kinds of transformation in attitude, values and behaviour in the long-term that seems to be demanded. In making policy decisions we seem to have fallen for our rhetoric, believing that schools are educational institutions that act rationally to achieve their goals, aims and objectives. But, paradoxically, if you were asked to design settings which might encourage drug use among young people, schools would seem to provide optimum conditions. Schools provide an environment in which drug taking is prohibited or disapproved by adult authority and surrounded by the weight of institutional sanction, yet they often act informally to celebrate drug use as an adult social convention.

Schools and colleges provide the ground for close peer relationships, social networks and activities and an implicit culture of deception and risk-taking that appears designed to support a culture of resistance. The fact is that in the adult community, drug use is associated with relaxation and desirable life-styles (motor racing, team sports, rock music etc.), yet schools both deny these things to the young and deny adulthood to the adolescent. This leads me to suggest that it would not be surprising to find, that behind the facade of the formal curriculum, schools in fact act to encourage the very thing that

they deny. The source of the drug 'problem' may not lie in the peer group but in the institution of schooling.

Despite the well-meaning efforts that have been put into curriculum development, from a teacher's perspective the problem would appear to be less with the curriculum than with the hidden curriculum. One of the few things we know about the hidden curriculum is that any attempts we make to manipulate or control it are likely to lead to surprising outcomes and even to reversals of our aims and intentions.

Looking deeper into the nature and structure of schooling in order to explain the insistence that students are not adult, it would seem that part of the educational problem for schools and colleges stems from their dual role, and frequent confusion between being educational in intent but custodial in practice. In this context, an issue like drug use takes on many complications. As well as a public expectation that they act as agencies for moral and social control, schools have an affinity, perhaps derived from their historical origins, for moralising and rhetoric that often undoes their best intentions of acting educationally.

The problem for schools is that they stand on a knife edge, acting at one moment for the parents and at the next for the state. Teachers are frequently caught between their desire to act as agents of socialisation, and the requirement that they act as agents of institutionalisation. Their role is both to educate and to control but their vocation also demands that they enter relationships with their students. You don't have to watch *Dead Poet's Society* to know that this can be a dangerous and uncomfortable place.

The evaluation problem

If the drug problem calls on schools for a response that is more complex and more subtle than can be met by our desire to create curriculum packages and training programs, what are the consequences for evaluation?

Certainly drug education provides a case that exemplifies the fact that it is not enough to evaluate a program and its performance against its own declared aims and objectives. To do so does not allow for fallibility in either the policy or the proposal in a field where failure is virtually inevitable. In any curriculum development, those who designed the program should have the opportunity to realise the limitations of their own understanding of the effects and consequences of their actions. They need to be given freedom to fail on condition that they learn from their errors of judgement.

Critical appraisal of the aims and objectives in terms of their relevance and appropriateness is an important element in any evaluation, and one which forces the

evaluator to confront the politics of educational values that lies at the heart of any educational program.

It is not enough for a program to claim that it has met its objectives. It may be more important to ask whether or not these objectives are worthwhile and appropriate, whether the program has made a clear analysis of its potential to bring about change and whether it has made intelligent decisions and understands its limitations, dysfunctions and shortfalls. In the long run what may be most important in any program is not what is achieved but what has been learnt. A program may be best judged, not by its outcomes, but by what those people who are involved in it, do next. The evaluation task is, in large part, to help people redefine what counts as success.

I can understand why some evaluators see their task as identifying behavioural outcomes from drug programs, arguing that it is only programs that demonstrably make a difference that can be said to be effective. Yet we know that short term gains, in this sense, are often illusory. When we are talking about children and young adolescents, an attitude, value or behaviour that appears to be established at one point in time may be so context-bound that a change in context triggers a later block or reversal. We probably all know of young children strongly opposed to smoking who later become tobacco users, and secondary students who reward themselves for writing an essay on the dangers of smoking by smoking a cigarette. As Roger Barker showed many years ago, behaviour is powerfully shaped by ecology, a point made independently by Ilona Kickbusch in relation to health promotion (Barker 1968; Kickbusch 1989). As young people move from school to college or school to unemployment or school to work, the new contexts in which they find themselves are likely to be more powerful in bringing about behavioural change than anything we do in a short classroom-based program.

What we need is a better understanding of the settings within which action is embedded. To understand drug use in schools we need to understand the schools, and change them, just as much as we need to understand the student-as-user. Adding drug education to an already overloaded curriculum is not likely to have major effects so long as the curriculum itself remains competitive, academic and boring.

It could be argued that evaluation could overcome some of the technical difficulties inherent in the objectives model if we did long-term, longitudinal studies. Even if we had the resources to do so, such studies would be of limited use. We cannot assume that one generation will behave in the same way as the next.

What an educational evaluation can do is to ask questions, rather than limiting its role to giving answers. It can make connections between a specific program in a particular school and the experience others might have had elsewhere. Descriptions of instances and cases can provide a basis for developing shared and continuing experience.

Description is important but it is not enough. Evaluation has to go beyond description if it is to ask questions about the strategies that are adopted and the choices that are made, even implicitly, between one set of actions and another.

In teaching about drugs as in teaching about anything else, much has to be taken on trust, and in relation to such questions, evaluation does not always help. Yet, in an area that is inherently so difficult we need evaluation if we are to accumulate any basis for future wisdom. The primary need is for description related to analysis and critical comment. Measuring effectiveness is an illusion.

Drugs and the science curriculum

I began this chapter with the claim that as science teachers sought to include the applications and implications of science in the curriculum (particularly in response to the environmental movement and the demands of health educators), so the model of science implicit in most science teaching would be put under question. Drug education has been considered as a test case.

The standard science lesson which consists of experiments followed by class discussion does not offer an adequate means of dealing with drug issues. If school science is to include topics like drugs, then it needs to take into account a range of social and other issues that lie beyond the conventional training of science teachers. To include a few experiments on smoking, to discuss the available statistics and to think perhaps of the role that fermentation has played in the history of science, is to miss most of what is practically significant in the lives of students. To take issues like drugs seriously would cause schools to question the conventional curriculum, but more than this, they would need to examine the conflicts implicit in their mission and in their professed social role. The separation of curriculum and schooling, which has marked secondary education in the past decade leaves little space for real problems. Faced with a serious issue, like that posed by drug use, the science curriculum and schools more generally invariably find themselves able only to offer moral indignation.

Chapter Eleven

THE MEDIA, OPEN LEARNING AND THE CLASSROOM

The purpose of this chapter is to question an assumption that runs through most educational research and through this thesis to this point. The assumption is that classroom teaching is essential to the organisation of education, and in fact virtually defines what counts as education.

During the past thirty years (and indeed before) there have been sporadic attempts to claim that the classroom is dead and to see in radio, or teaching machines, or television, or computers the possibility of forms of teaching and learning that are not classroom based. In practice these innovations have almost always been incorporated in schools until the next fashion has appeared and have left little trace in classroom practice. There are, however, distinct signs that this is changing, and nowhere more than in the universities. The advent of microcomputers and the shift of the media into digital forms provide the technological basis for forms of educational practice that are more complex than classroom teaching, not less so. This chapter describes some of these changes and speculates about possible directions that may characterise the near future.

This chapter also marks a shift in style. It is more polemical and it crosses a boundary rarely crossed in a research thesis in that it draws directly on my own current teaching concerns. There are several reasons for this but foremost among them is an attempt to carry through the precepts of Lawrence Stenhouse and others who have argued for the concept of 'teachers-as-researchers'. As university academics we tend to use this argument to apply to the work of others (especially to teachers in schools) and only rarely to apply it to ourselves. Consistency demands that we attempt to build a research dimension into our own teaching, a demand that has become more pressing in recent times as the idea of 'research as the basis for teaching', which was a key concept in the founding and development of the modern university, has come under political, financial and organisational attack.

I wrote this chapter in an attempt to use my own current teaching concerns as a part of research practice, but as I did so I soon became aware of a significant contradiction. My research concerns are with the way curriculum issues are realised in the classroom. The courses I teach are concerned with classroom processes and classroom research. But as a distance teacher I don't have a 'classroom' in the conventional sense. The teaching I do is by correspondance, through the use of audio and video tape and by telephone. As distance education grapples with the digital revolution and with the increasing expectations of those in policy making positions, the very concept of the classroom

comes open to question. In Australia in particular, where the 'tyranny of distance' has been a dominant concern, not just in educational planning, but in the culture as a whole, it is possible to conceive of the classroom becoming one of a number of possible ways in which education is 'delivered' rather than being seen as a necessary and defining method. The effects this might have on research are difficult to imagine, let alone to predict. This chapter is included here to provide a line of thought that leads out of the closed world created by the thesis. The fact that its presence here threatens to destabilise the argument explains, in part at least, why the tone is occasionally didactic and at times defensive.

Education and the media

In countries throughout the world a major contemporary issue in education revolves around the question of how to provide for the development of intellectual skills in the community and in the workforce. Particularly in the industrialised west, and everywhere as governments see in education and training a mechanism for accelerating the speed of economic change, the problem of how to increase the effectiveness of professional, managerial and technical workers looms large. As economic change bites, this is, more often than not, followed by the related problems of how to secure communal action, social participation, the basis for a common culture and personal safety in what has come to be called a 'post-industrial' society.

There are many facets and many dimensions to each of the many questions that arise from this general concern but what I want to discuss here is one aspect of the central contemporary educational problem, namely the use of the media as a means of delivering open learning to the home.

'Fordism' and the industrial model of distance education

Open learning is currently a significant issue on the political agenda and its first appeal to politicians and planners lies not so much in its capacity to escape the 'tyranny of distance', but in its low unit cost and ready accessibility. At first sight, distance education appears to provide a solution to the current dilemma of contracting public spending while maintaining a sense of government investment in education without jeopardising 'quality'.

In the last few years, however, as experience of distance programs has accumulated, we appear to have moved beyond this assumption to seeing the capacity of open learning to provide a flexible and adaptable response to the kinds of changes required by rapidly fragmenting and fast moving markets, and the workforce demands that follow, as its key value to policy makers and planners. The current claims for distance education are less about its low unit cost and more in terms that it offers the promise of advancing the

implementation of an advanced service economy and extending the scope of social justice, without the commitments, institutional costs and long term inertia associated with the expansion of conventional educational programs.

In the current debates about educational change, economic factors provide not just the primary motives but also the dominant motif. In metaphorical terms, distance education has often adopted an industrial model[1] of a kind referred to as 'Fordist'. That is to say, it has been assumed that distance education, like car production, requires a mass audience, long term planning, high development costs and a relatively stable product. This model also assumes the need for a range of necessary ancillary services; research and development, advertising and promotion, maintenance and quality control as well as a highly developed infrastructure.

In recent years the assumptions of 'Fordism' have become modified (just as the Ford Motor Company is now able to create a range of models, and at least the appearance of flexibility, from different combinations of component parts). Policy thinking (from the various training programs created by the Manpower Services Commission in Britain to current training initiatives in Australia) currently tends to operate in terms of commitments to limited-run programs rather than semi-permanent organisations, to splitting training functions off from established institutions and re-locating them in temporary programs, to valuing technical expertise and capacity to deliver on time and devaluing independent or critical capabilities.

All this might be interpreted as a move to a post-Fordist model, though often such programs are only possible in the short-run against a wider commitment to a complex and extensive schooling and tertiary education systems (and, in the case of distance education, to a broadcasting system) which are of a different character. So, for the moment we appear to have 'Fordist' and 'post-Fordist' systems running alongside one another in parallel, or even in close inter-connection with one another, rather than one replacing the other.

Distance education and the media

Despite the existence of better examples elsewhere, the Open University in Britain is usually taken to be the paradigm case of the 'Fordist' Model. Though recent developments in the OU suggest significant modifications to the assumption, since many students now take only single, non-degree courses and the provision of undergraduate degrees to large cohorts of students is becoming a smaller part of the university's work. But until its recent decision to revise its contract with the BBC, the OU was locked into a

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[1]Evans and Nation refer to this as 'instructional industrialism' Evans & Nation (1987,1989)

set of assumptions and a pattern of media use which emphasised broadcast media, when what may be more appropriate in its current context is 'narrowcasting' (on the Channel 4 model) or what Stewart Brand, looking to the near future, calls 'broadcatching' (Brand 1988).

Current changes in the structure of broadcast media are interesting because they raise significant questions for distance educators. The 'Fordist' industrial image that lies behind the original OU model fitted well with the broadcast assumptions of the BBC when the need was for a mass audience and economies of scale at a national level. However, the BBC now appears to see its future in the worldwide satellite tv market, where it is in direct competition with CNN, rather than more narrowly with national educational broadcasting. At the same time, the emergence of Channel 4 has demonstrated the viability of an alternative set of assumptions. The underlying model here is not 'Fordist' but closer to the assumptions of the fashion clothing market, where the aim is to respond quickly to a wide range of changing demands through the use of dispersed production with integration achieved by effective communication.

Channel 4 is commercially sponsored but its material is independently produced, it broadcasts nationally but attempts to identify minority segments of the audience In this sense it is like a modern shopping mall (Darling Harbour, Covent Garden or Fanneuil Hall), or perhaps like a primary school classroom created as a set of 'learning centres'. The key assumption that Channel 4 makes about the audience is that, rather than there being a 'mass' audience that makes up the majority, with a series of specialist audiences that make the minority that, increasingly, the 'mass' audience itself is becoming a conglomeration of minority interests in which it becomes increasingly difficult to find common ground or a common culture. The image of the media that narrowcasting suggests is culturally plural, politically critical, relatively low cost in production terms, segmented, interactive and innovative; an image in many ways closer to the current open learning needs than the mass audience, broadcast model.

Beyond narrowcasting, the notion of 'broadcatching' looks forward to the implementation of emerging technologies which provide for a great variety of incoming broadcast sources, many of which are geared to specialist interests and which require the viewer to act in the roles traditionally assigned to editors and producers. To give an illustration, Stewart Brand describes a project under development in the Media Lab at MIT which involves displaying images from multiple channels on to one screen from which a computerised system detects the viewer's gaze and selects channels for screening. Having selected one channel the viewer can then branch out into hypermedia options, for instance moving from a news presentation to background information or

previous reports. This kind of technological development gives video the responsiveness to gaze we have come to expect of books and presents obvious challenges to the notions of instructional design and programming we have conventionally built-in to most distance education courses. In particular it challenges the notions we have adopted in distance education about the nature of learning, the necessary structure of courses and, more fundamentally the relations between knowledge and control[2].

The intersection of publishing, computing, the media and education

In his account of the work of the Media Lab at MIT, Brand uses an iconic device borrowed from the director of the lab, Nicholas Negroponte. Negroponte conceptualises the work of the lab by depicting the realms of publishing, the electronic media and computing as institutionally separate but set on a course leading to convergence as a result of technological development. You only have to look at what is happening to home entertainment, he argues, as CD players, television monitors and receivers become more closely integrated, to be followed soon by computers, CD recorders, digital tape and modems. It is this level of integration of the technology that opens up the possibilities of 'broadcatching' as opposed to 'broadcasting', for it provides the basis for systems which place the receiver in roles that conventionally belong to programmers, editors and even producers.

The notion of the viewer as editor is exemplified by the idea of a news service that allows viewers to treat the conventional broadcast news as hypertext, moving out to background information, historical records, past news items on related topics or more detailed accounts of particular facets of a story. Though it should be noted that there are also developments that work to mechanise this same programming and editing process, as in the idea of the fully electronic office or the programmed tv receiver that automatically records broadcasts it 'thinks' you might want to see, based on its memory of past requests.

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[2]Note that the seminal book, *Knowledge and Control*, edited by Michael F D Young in the early seventies was very much a product of the first generation of Open University courses, but that, despite a contemporary concern with reflexivity, it largely failed to turn its argument to distance education.

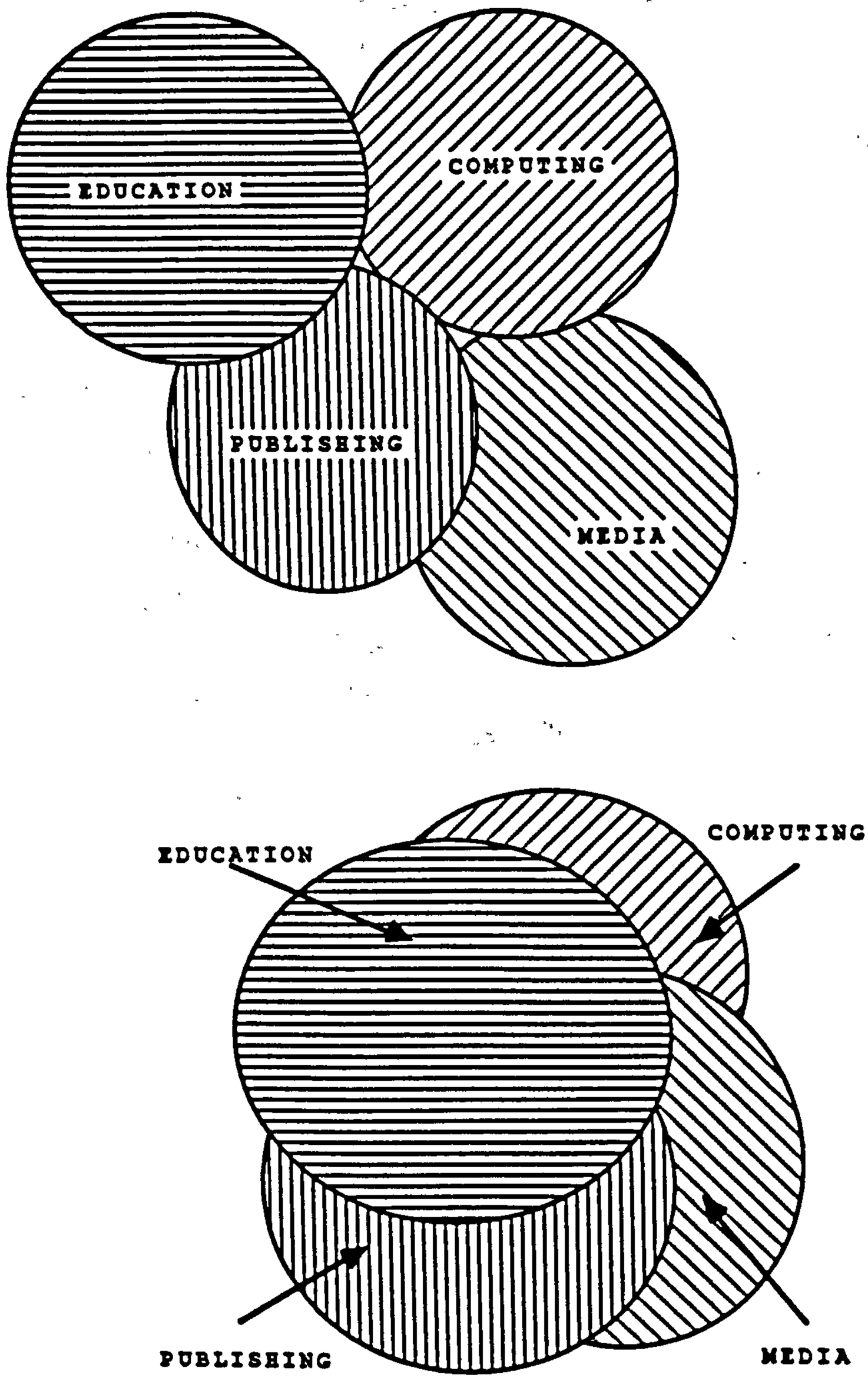

Figure
The growing convergence between Education, Computing, Publishing and the Media (after Negroponte)

Underlying this chapter is the assumption that, if we add 'education' as a further realm to Negroponte's diagram, what we are beginning to see, and will become a more marked trend in the next five years, is an increasing convergence between institutions that have previously remained separate. The change will not just be technical but organisational,

economic and cultural. We will need to rethink the separations we have come to accept between education and entertainment (Brand talks of 'infotainment'), between high culture and vernacular culture, between private and public enterprise, between the word and the image and the sound.

It is, of course, important not to let the rhetoric run away with itself. It is no accident that Negroponte and The Media Lab get most of their funding from the military-industrial complex, and particularly from the communications corporations and from defence contracts. Brian Winston, onetime researcher with the Glasgow Media Group[3] and a master of the placement of the comma, sees this and warns:

> The information revolution is an illusion, a rhetorical gambit, an expression of profound ignorance, a movement dedicated to purveying misunderstanding and disseminating disinformation. ...It is my contention that far from a revolution we have business, and I mean business, as usual.
>
> (Winston 1986 p. 363-4)

But, whoever has controlling interests at stake, it seems clear that change is imminent, and certain to have effects for education. Brian Winston's warning is important and reminds us, that in dramatically changing circumstances, we should not to loose sight of the issues of equity and access, knowledge and power, for which educational research has developed a keen eye in the past.

Education and the limits of rational planning

In discussing education and the media it is easy to become seduced by the rhetoric of the post-modern and to assume that change is a process with little inertia. It would be a mistake to write off the Fordist assumptions which were previously used to underwrite distance education just because policy is shifting and some academics have found new ways of thinking about the issues. Fordist models, and the rational planning models, including instructional design, management by objectives and program budgetting, which make it possible are still in active use even if their rhetoric has been eclipsed.

Since the Second World War, and in the US particularly during the period following the Korean War, we have seen a dramatic growth in application of rational planning models in the public sector and especially in education. Curriculum, instruction, administration, evaluation, assessment and training have all been drawn into the ambit of state, bureaucratic and organisational control via management by objectives, program budgetting and performance review. The application of such methods has driven dramatic changes in education in the past four decades. The paradox is that such

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[3]The work of the Glasgow Media Group has included a series of research projects into television news broadcasts which have lead to a radical social analysis of news making, reporting and news broadcasting. (Philo 1976; Philo 1985; Broadbent 1985)

methods assume a stable substrate: they don't work when objectives change faster than the process can be developed and implemented[4]. Throughout this paper I am assuming that we are close to reaching the point where social change is outpacing the capacity of rational planning models to respond adequately. The assumptions of the rational planning model that are built-in to government and administration dissolve in the face of the need to innovate in the face of rapid social change

Twenty years ago, it was pointed out by the Swedish geographer, Gunnar Olsen, that planning models are not objectively responsive and value-neutral, but create realities of their own. On the basis of his experience in attempting to use regional planning models to engineer social equality, he wrote:

> I have gradually and rather painfully come to the conclusion that if we continue along the methodological and manipulative path we have been following thus far, then we run the risk of *in*creasing those social, economic and regional inequalities, which the planning initially was designed to *de*crease; our good natured attempts to rectify current injustices will be self-defeating, not because some vicious bureaucrat designed them that way, but because we have failed to understand the deep structure of social research and action....by employing analytical techniques and social engineering devices which are founded on rather peculiar assumptions about categorisation and linearisation, . .we have in effect come close to creating a society for human beings who themselves are peculiarly categorical and linear. If regional planning in Sweden, the Soviet Union and the United States have nothing else in common, it is exactly this simplified and dehumanising conception of man [sic]. Instead of creating a world for becoming, we are creating thingified man. . .
>
> (Olsen 1974, p. 355)

What Gunnar Olsen identified as a consequence of applying rational planning models to regional planning problems is even more critical when they are applied to education, where the transmission of social and cultural values is at stake. His challenge to research is that we cannot assume that the methods, techniques and procedures we have used in the past can be used unchallenged, for in themselves they embody social values and particular ideologies.

Educational technology, educational change and the state

I take it for granted that educational technology (in the wide sense of changes in media technology) has changed more rapidly than the capacity of institutions to invent and implement educational responses. At the same time, it is important to recognise that educational institutions are not free to follow technological change. In Australia we have recently seen what appears to be a prototype for a 'university of the air' patched together on the basis of a nineteen sixties, Fordist distance education model, not for any prior

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[4]Nowhere is this more obvious than in Australian state ministeries of education which have driven themselves into a crisis of inaction as they have changed policy objectives faster than their ability to implement change.

educational reason, but coincidentally with the shift of schools' television from broadcast to video, the availability of spare production capacity and the likely emergence of pay-tv. The main problem with this kind of policy-making on the run is that, while it creates limited opportunies for some, it leaves untouched the very assumptions that need to be challenged if we are serious about looking to the future potential of the media. It acts to reinforce those very values and practices that need to be challenged by treating them as technical means for the delivery of pre-existent programs.

The lesson we constantly have to relearn is that the need for rational planning implied by the industrial model tends only to come into operation after the necessary political compromise has been secured[5]. Behind the surface presentation of rational plans, the scale of operation of the teriary education sector ensures a degree of state control, and relationships between education and the state are everywhere increasingly marked by conflict . Any institution that assumes the need for large scale investment is likely to be slow to change and increasingly to be vulnerable to government control.[6] Rhetoric may focus on innovation and change but the processes ensure that conservatism dominates, and nowhere more than when concerns for accountability predominate. Education is particularly vulnerable to conservatism because its cultural role, as Willard Waller pointed out sixty years ago, is to act 'as a museum of virtue' (Waller 1932).

Expressed another way, educational change of any kind involves challenging values and established practice, it therefore involves risks. The scale of the enterprise is such that the immediate political concern will always be to reduce risk taking at every opportunity, while wider, unpredicted and uncontrolled changes constantly create new problems and new opportunities, virtually with every news bulletin. We sometimes choose to act as though education was apart from politics but the truth is education is always concerned with values and its inherent dialectic lies in its simultaneous commitment to both conserving the culture and to changing it.

Two transformations

In order to begin thinking about other possibilities for education in fast moving times, I will make the claim that, currently, two social transformations are critically important . One is the institutional transformation from the campus to the workplace and the home,

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[5]The full story is, of course, more interesting and more complex than this glib summary suggests. It has been recorded in outline by Gavin Moodie, manager of the tv Open Learning Project (Moodie 1991).

[6]An interesting illustration of technological inertia in the context of large programs arises in Richard Feynman's account of the Challenger investigation (the space shuttle that exploded on takeoff killing the crew). Feynman points out that the common public perception of the space program is one of a testing ground for leading edge technologies. Far from it he says, the computers used in the Challenger program were virtually antique but so much time and effort had gone into developing the software that it was impossible to change the hardware The whole Challenger program was built around outmoded technology. (Feynman 1990).

and second, the media transformation inherent in the shift from broadcast to recorded sources. It might be thought that the second transformation is not social but technical, but throughout this chapter I will use the term 'media' as necessarily social so as to include in its ambit concepts of audience, production and meaning. I am well aware that both transformations seem relatively insignificant in the light of the rhetoric of the preceeding discussion and even within the limited topic I have set for myself there are significant questions that will remain unanswered: questions about the need to protect risk, about the desirable scale of educational institutions, about the nature and conditions of intellectual freedom. The fact that in this chapter these questions are left untouched does not mean that I think that they are unimportant.

I should also add that my own concerns as a distance educator are narrowly defined by working largely with the problems of providing professional development programs for teachers and other educators. I believe though that none of us should let the scope of our activities become too closely defined, since to do so is to become trapped in a limited frame of reference. So, in writing this chapter I have attempted to retain the problems of professional development for teachers as a point of reference rather than as a restrictive frame. What remains unstated is not necessarily neglected nor forgotten.

School and home[7]

One aspect of distance education we have neglected in our haste to establish programs is the need to think about what is involved in changing the location of study from school to home. Distance educators usually assume that their students are mature students for whom study is but one facet of their lives, This often leads them to see curriculum and learning as constants and to see the significance of the shift to home study to lie in the need to 'individualise instruction'. This limited view of the significance of context is perhaps a reflection of the fact that most professional 'distance educators' have been trained in educational psychology and instructional design or have been strongly influenced by these fields of enquiry. A significant consequence (institutionalised in the structure of the Open University) is the separation of curriculum from pedagogy, production from delivery, course development from research. These separations are not simply abstract or distant from the action; they have serious consequences for students.

As a way of unravelling some of these complexities, it is necessary to develop a student perspective: what looks to be rational to the planner may appear confusing and

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[7]I have chosen to write about 'home' rather than 'workplace' as the site for distance education, there are other things could be said about workplace-based programs.

even irrational to the planned. As a way of beginning to do this we have asked students on distance courses what images they have of themselves studying[8].

A dominant image is one of silence, stillness and of being alone. The themes that recur are of 'study' being the time, late at night, when the children are settled, the husband is watching tv in another room (many of our students are women), it is dark outside, there may be a dog or cat close by, the kitchen is clean and tidy, the lunches are ready in the 'fridge for tomorrow and the student has cleared a space at the end of the table, minimally disturbing the table set for breakfast. The books are opened and 'study' can begin.

I am intrigued, even obsessed, by this image, not least because it is at odds with many of the images I hold as the 'teacher'. It is an image in which education is seen as marginal, both socially and within the domestic economy; an image of education as contained by strong brackets, and of learning as passive, receptive and intensely personal.

It is also an image that challenges many of my assumptions, for I have tried to design courses that are activity-based and socially interactive and which build on conceptions of knowledge as communal. In our courses we require people to take photographs and talk to people, to watch their children at play, to take note of what their children say when they come out of school, to engage those you work and live with in games and puzzles and to listen to meal time conversations with a new ear; all activities which overlap as much as possible with the demands of everyday life. But, while some students leap at this opportunity to engage in a course that is seen to be 'different', many are disturbed by the conflict that is created between the view of learning encoded in these activities and the common view of 'study' that is seen as synonymous with isolation, quiet and their transient space at the end of the kitchen table.

Whichever way we look at it, it is clear that 'individualising instruction' is not just a matter of allowing students to take their own pace as they work through the materials. Taken seriously it can also involve some negotiation over what constitutes the curriculum and how it is to be assessed. For instance, in the tension that exists between the students and myself there are differences in what is valued, in the assumptions we each make about what constitutes academic work, in the status of course materials as against personal experience, in the educational value of co-operative as against individual work

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[8]In what follows I draw on a number of evaluation reports of the Deakin course, ECT 401 *Classroom Processes* written by Herbert Altrichter; Terry Evans, Lynette James, Alastair Morgan and Chris Saville and by David Kember and his colleagues at Hong Kong Polytechnic..

and in the role of assessment. Gender issues are never far from the surface. These are, I believe, creative tensions of the kind that make the course 'educational' in a deep sense, at least on those occasions when the tensions themselves become the curriculum. They are not assumptions that make it easy to think about the course in the simple language of 'delivery' and they are not assumptions that make it easy to separate out the roles of course developer, teacher and assessor, or even student.

Some distance educators would see these problems as essentially technical, that is to say that they believe that they could be solved with faster and more efficient communication. New advances in educational technology may offer some solutions, but I believe it is too easy to see in in computer-based interactive video, or electronic mail networking, solutions to problems that only exist for the planner and not for the student. The new technologies offer planners visions for the future, but in the present world that teachers and students inhabit, they often only make things worse, encouraging us to retain separations between course development and delivery, for example, which are counter-educative[9]. Discussions about educational technology frequently assume a plasticity in the student that is misplaced, and particularly misplaced when our audience consists of grown ups. Whether you sit at the kitchen table with a pencil and a book or with a personal computer does not make much difference. The real problems are primarily educational and they demand an educational, not simply a technical response.

The image of 'the space at the end of the kitchen table' as part of a definition of what it means to be 'learning' is a particular image that appears to fit for some students in one course that I teach in a faculty of education. I am sure there are other images, even within this same course. Then there are the images they have of what it means to teach and of me, the teacher. We sometimes assume that placing course materials in a nicely designed binder in itself obliterates the image of the teacher, placing the student in direct contact with the curriculum. But, as I mentioned earlier, the fact that curriculum is necessarily mediated means that teaching and learning are never the naked contact of minds and ideas, the ideal 'teacher-proof' curriculum. The curriculum is always mediated. The media are not simply contextual but a necessary part of the content.

Some might see the image of the 'space at the end of the kitchen table' as peripheral to the distance education enterprise, but to do so is to adopt the blinkered perspective of the rational planner. From a student perspective, the program may look very different, and different in ways we cannot fully know or predict. It is also true that what is important is

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[9]It is important to remember too, that many of our students are home based and that they have other priorities in their lives and in their budgets. Buying books is something many have to plan within the constraints of family budgets, and while a video recorder maybe justifiable as an item the family will use, buying a high-speed modem will not be.

not just the content of the image but the fact of its existence. The point is that such images are not simply a consequence of a curriculum model: they are not noise in the system but part of the system itself. They are fact, not artefact. They may even become the content of the course itself. For example, for teachers, to consider the images they hold of what it means to study, to teach or to learn can in itself be educationally significant and an intrinsic aim of the course.

I am intrigued by the idea of creating courses that are about themselves. In our course[10] we ask students to examine photographs of themselves, and of other course members, teaching. A difficulty we always encounter stems from the fact that many of our students are women taking time out from primary teaching to be with their children. 'I'm not doing any teaching at present', they will explain, often adding 'I'm just at home with the children'. We encourage them to persist with the task by thinking of ways in which they might depict their parental role in educational terms. The result is often delightful pictures of mothers with children, baking, gardening, reading stories, making music, caring for animals . . . Somehow though there remains a sense of disappointment that is not 'real teaching'. Later we ask them to listen to a videotape in which David Hamilton talks about his research on the history of classrooms, using old paintings, drawings and photographs as a source of evidence. Faced with images of schooling in the seventeenth century, when 'classrooms' were of a more domestic character, class instruction did not occur and the curriculum was largely individualised and informal, those students who are parents gasp at the recognition of the parallels between their circumstances and historic situations. The fact that such classrooms are seen to be closer to the modern conception of an open primary school classroom than are some of the images of class instruction in the nineteenth century adds to the insight. 'I have realised that I am teaching after all', one student wrote.

The shift from school to home as the locus for the delivery of education appears at first sight to be a relatively simple change in location but it is much more complex, not least because it causes us to rethink what we take for granted about education in institutional settings. We too readily assume that the organisational features of schools - classroom teaching, institutional timetables, simultaneous instruction - taken together constitute what counts as education, when they are essentially means not ends. Considering alternative means, even the space at the end of the kitchen table, creates different images which undercut values and practices that we tend to take for granted. I have to keep reminding myself that placing a personal computer or a video screen on the end of the

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[10]The main implicit source of reference for this chapter is two distance courses offered by Deakin University that I teach along with Helen Modra, Wendy Crebbin and Wendy Crouch. The courses are ECT 401 *Classroom Processes* and ETL 822 *Classroom Research.*

table in itself changes very little. The important questions lie in the relationship between learning and the domestic economy, in how we perceive the nature of work, in the nature of the authority implied by the idea of the university[11], all questions that I would argue are fundamentally educational.

Fieldwork, desk work and reverse ethnography

Anyone who has done laboratory research, tried to carry out sustained ethnographic fieldwork, or attempted to make a documentary film, will know about the difficulty of directly observing the concepts encountered in textbooks. Face to face with actuality there are no equations, kinship systems or bureaucratic structures, no relationships, authority or learning. These things are abstractions that only exist when we come to put what we encounter into numbers or into words. Research workers (and film makers, journalists and writers) have developed ways of coping with the ephemeral nature of reality that make it make sense, and it is this sense that generally forms the content of curricula. What we teach is mostly at the level of concepts and theory, highly abstracted from the immediate confusion presented to us in our first hand contacts with actuality.

The problem is that those who are learners, faced with an abstraction removed from the social context of its origin, have to reconstruct it in terms that are recognisably 'real'. Hence, a large part of what counts as teaching and learning consists of visualising and verbalising illustrations, models, examples, anecdotes and metaphors that bridge between abstraction and our perceptual experience. In short, learning can be thought of as reverse ethnography, for where ethnographic fieldwork forces you to move from the particular to the general; learning essentially progresses in a reverse cycle.

On a longer time scale these cycles merge, and this is important for the concept of open learning because open learning aspires to insinuate itself into the patterns of working and social life. Unlike conventional undergraduate education, the aim of open learning is much less concerned with indoctrination and more with reflection on experience. This raises important questions for those assembling, delivering and assessing curricula because it implies that we need to build in the full cycle into the way we think about course construction. At some times it may be important to present concepts, theories and ideas in the way that they are conventionally presented in university courses, and to value students' competence in assimilation, information recall and analysis but it is equally important to build in tasks that call for judgement, synthesis and collaboration. This may

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[11] Another facet of this argument I have not mentioned but which seems glaringly obvious, is the way in which the very architecture of universities is constructed to impose, or at least to celebrate, particular notions of authority in relation to knowledge. At the very least, a university course which takes as its architectural facade the space at the end of the kitchen table, is required to rethink its assumptions about the location of authority in the context of learning and teaching, even if it only displaces them into the design and presentation of course materials.

mean providing tasks that simulate the pre-world of the textbook, providing students with the vicarious experience of doing research.[12]

Broadcast and recording

The second transformation I want to consider is more narrowly a media issue and concerns the shift away from broadcast sources to the use of recordings. Current ABC (Australian Broadcasting Corporation) policy, following recent changes in the Copyright Act, is to encourage educational institutions to use video and audio taped programs rather than make use of direct broadcasting. In other countries, where copyright practice has been less constrained (in the UK, for example), video and audio recording have been used more extensively in schools and in open education for some years.

There are many reasons why moving from broadcast to recorded sources is a sensible idea; it fits timetables, it allows teachers to preview material and students to use programs as a source rather than as a course. It seems though that we have not thought through the educational impact of relying on tape as opposed to broadcast sources, which I believe should cause us to rethink the way in which we program audio-visual material. In particular, research suggests that the use of television in school is qualitatively different to its use in the home[13], the differences being not merely differences in context but in the nature of the medium.

The production of broadcast tv and radio requires the adoption of a number of conventions which can be summarised as being the conventions of 'program-making', by this phrase I mean all those techniques and skills that producers and others use to make good radio and television in a broadcast context. 'Program-making' has a long and honourable tradition, it involves years of professional training and despite its basis in technique there is a certain magic to it when it works well. It is celebrated by film critics and deeply incised in the culture of institutions like the ABC, being encapsulated in the phrase 'production values', and it survives even in the face of current attempts to force it into a mould created by those whose interests are in management rather than broadcasting[14].

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[12]The American social studies curriculum, *Man: A Course of Study*, brilliantly demonstrated that this need not be restricted to adult learners but is possible for primary school children.

[13]Patricia Gillard (previously, Palmer) has pioneered the innovative use of children's drawings to investigate children's television watching, a method Susan Groundwater Smith has adapted to the development of a comparison between watching tv at home and watching tv in school. See Palmer (1986) and Groundwater Smith (1990). There seems to be a gap in the literature on how children watch video.

[14]Roger Silverstone has written an intriguing case study of the making of a science documentary film in the 'Horizon' series which shows how the medium imposes its own demands on the content of the film (Silverstone 1985).

From the point of view of the program maker, such production values are often not appropriate when we make use of tape in an open learning context. In using video the essential values that underlie program making are dissolved. We no longer need to think of standard time slots, we no longer need to 'hold attention', indeed we no longer need to edit. It is true that some of the magic of the medium may be lost but there is considerable potential for educational gain in the complexity that can be built into the medium and in the control that the learner can have over the replay of the record. In the shift from broadcast to recorded sources, the need for authoritative narration, perhaps the definitive feature of educational progam making, disappears.

The overall planning assumption appears to be that the shift from broadcast to recorded sources is essentially organisational, a decision that can be made on the basis of costs and availability, and has few implications for program organisation, use or content. For the educator, however, there is more involved. I believe that shifting from broadcast to tape is not simply an organisational and technical decision but that it has significant educational implications, many of which we do not fully understand. From the point of view of a young audience, sitting close to the screen with a group of friends sharing a bean bag, a packet of chips, the family cat and the remote control[15], the world of the recorded image and/or sound is very different to the world of broadcast, not least because it can be retrieved, manipulated, discussed, dissected and deconstructed. In the process the nature of time changes, ceasing to be linear and metric, progressing from determinacy to uncertainty and instead becoming fragmented, branching and polychronic. This has consequences for the domestic economy but it also has consequences for program makers, not least in that it implies very different models of learning. Central to the repercussions it creates for production values in educational television is that it raises a large question mark over the need for narrative and for narration.

I am suggesting that, more than broadcast television, video has the capacity to develop a sophisticated, critical audience, more conscious of the grammar of film. In the case of their favourite clips from their favourite videos children may approach the point where they have a complete, frame-by-frame memory. What they come to understand is the deep (generative) structure rather than just responding to the surface effects of the film . Perhaps perversely, television, often popularly decried as responsible for falling educational standards, can achieve a long-held aspiration of educators; to take students inside structures of knowledge rather than leaving them with the notion of learning as the rote learning of surface effects.

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[15]The image here is taken from Patricia Palmer's evidence. The parallels with the 'kitchen table' image used earlier are not accidental.

To give just one example of an alternative to the conventional program structure adopted by the Open University and others, in one of our courses we have replaced a course that occupied 400 pages of text by one that occupies 200 pages of text and a 3 hour videotape (how these equivalencies are calculated is probably best left as a mystery). While some of the video is program-like, as it includes documentary style segments, other parts resemble observational cinema in that they aim to provide 'ethnographic' records; some are didactic; some tutorial-like; some are very short, running for less than two minutes, but requiring students to view them repeatedly in order to understand, for example, the speed and subtlety of non-verbal communication associated with conversation. Overall, the 3 hour video makes little sense without the text, which is closely integrated with it. What we have, we believe, is a course which, contrary to the conventional model, has strong aims but weak objectives and which integrates the media (we also use audio tape and photographs) in a way that would be very difficult to achieve with broadcast sources.

The implicit educational model is of the student as editor[16], for students are given a range of different kinds of material which they have to recreate in a form that makes sense. Educationally, if not technologically, the course simulates the 'broadcatching' notion mentioned earlier.

On campus: off campus

Discussions of distance education frequently start from an inherent deficit model. 'Real' education is taken to be proximal and the problem for distance educators is seen to lie in doing the best we can to approximate it. In this view the central transformation that we are concerned with is that of translating materials from on-campus to off-campus use. Starting from this point of view the problem becomes one of taking the educational assumptions of on-campus teaching and finding distance substitutes; instead of giving lectures and holding tutorials, distance educators invest their efforts in written texts, telephone conferencing, audio and video tape.

It is true that much effort goes into rethinking what we teach in terms of the demands of these formats and this is not a simple or trivial process; it demands knowledge, experience, skill, imagination and close team work. All of us in distance education have had good ideas and we have also made major mistakes, and along the way we have come to appreciate the complex ways in which all educational encounters are mediated. But behind this accumulated craft knowledge, in the general direction we have taken

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16 The notion of 'editing' as a key feature of learning in the face of mediated information is taken from Neville Stern (Stern 1991).

research, development and practice, lies an error of judgement. In educational planning it is always tempting to begin in the wrong place, that is with organisational means rather than educational ends. Curriculum, teaching and learning too easily become icons to move around on timetables, schedules and year planners and in the process whatever is human in the process becomes virtually defined out of existence.

One way of recovering other options is through historical analysis. Historical analysis (notably by Hamilton 1989 and Bartlett 1989) has recently located the 'invention' of terms like 'curriculum' and suggests that a key term in the social process of evolving language use is 'class instruction', that is to say simultaneously teaching numbers of students the same thing. Class instruction is a relatively recent phenomenon, closely related to the development of the industrial revolution. As David Hamilton points out, the classroom is in itself a technology. The very idea of 'classroom teaching', which constitutes the reference point for the use of media in education, may be transitional. The contemporary power of the media may be that we can dispense with the classroom rather than looking to replicate or supplement it. This leaves us with the interesting educational question of what education might look like if classrooms did not exist.

Open campus; open classroom?

This suggests that one of the keys to the permanent unlocking of the classroom door lies, not in the obvious dimension of space, but in the dimension of time. Just as it is not four walls but the timetable that constrains classrom teaching, so it is not the tyranny of distance that constrains distance education but the tyranny of course deadlines. While many distance courses allow freedom to students in the ways they program their work between units, when it comes to a particular sequence of instruction we find it more difficult to give up the notion that everyone should proceed lock-step. David Stowe's innovations of the nineteenth century live on, close to the surface of even the most technologicaly-rich modern educational program[17]. For the student to take control over the pacing of knowledge, as Basil Bernstein pointed out twenty years ago (Bernstein 1971), is to threaten conventional notions of curriculum structure. To do so has significant consequences for what and how we teach and for how we assess student progress.

As a first step in this process, I believe that we have to turn from teaching to learning as the organising concept, and in this distance educators can claim some success[18], but the research literature takes a limited view of learning, creating a perspective that only takes us so far. First, available distance learning theories mostly focus on a teacher-

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[17]For an educational account of this history see Hamilton (1989)
[18] See, for instance, Marton *et al* (1984)

dominated model typified by undergraduate teaching, that is to say they assume learning objectives and they see the essential problem as one of producing unambiguous texts coupled with reliable, effective and efficient tests. Things might look different if we took PhD programs as the model and worked back. As I argued at a more general level earlier, an approach based on the objectives model can be said to work in conditions of stability and consensus but it is not well adapted to change, particularly when plural values are involved.

One response to this problem has been to create courses that seize on contemporary or emerging ideas and use these as organising devices[19] but while this style of advocacy response has had some success it is a response that invites conflict and may place students in situations they are not equipped to handle.

Restricting our vision and our efforts to refocussing on 'learning' as an organising principle is not enough. To focus solely on 'learning' is to ignore the current state of chaos in many curriculum areas and, more important, the significance of the material, social, cultural and biographic, working and family contexts within which students learn. Taking the wider view, learning objectives are unimportant and subsiduary to learning. In times of unpredictable and fast moving change, what is important is only that students learn from the programs we provide and develop the capacity to reflect on that learning, it should not be our primary concern to specify curriculum outcomes or to measure their efforts against performance criteria[20].

It does not require too deterministic a view of history to suggest that the current context is one in which we should think about moving away from the 'Fordist' notion of uniform mass production, which has been built-in to much of our thinking about education in the last thirty years. Instead we can begin thinking about education systems that are 'individualised' in that they incorporate within them a wide variety of designs, options, and changes and are subject to constant innovation. Implicit in the notion of 'individualisation', viewed this way, is not simply that the student has control over the pacing of knowledge, but also engages in the processes of its selection and evaluation. This revaluation of the relation between the student and the subject in turn raises other questions about knowledge in terms of educational purpose and the role of education in maintaining social structures and cultural continuity. Do developments in education, the

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[19]There are interesting examples of this response in the recent history of distance education. One notable instance is the original version of the OU *School and Society* course which became significant in the development of the sociology of education in Britain during the early seventies.

[20]What this might mean in practice can be judged to some extent by two innovative, interdisciplinary OU courses, U201 *Risk* and D321 *Professional Judgement* which exemplify the potential of open learning.

media and society provide the ground to cause us to redefine educational inequality? Do we need to reassess the notion of expertise and the role of the expert? What is the nature of professional judgement? What are the institutional imperatives required to secure the free development of knowledge? Such questions are essential to the universities and central to the development of open learning, for it is in open learning programs that we have the best opportunity to reconstruct the relationship between those who learn, those who teach and what counts as learning (but also the best opportunity to close the questions).

Future directions for policy

I have argued that, instead of trying to identify 'mass' audiences to whom we can deliver a highly formalised common course at low unit cost, we need to begin thinking about highly differentiated programs through which individuals can create specialised and indeterminate routes. We need to think less about creating a common culture through a common curriculum, and more about responding to individual curriculum vitae. Educationally, this means rethinking questions of knowledge and control in relation to the roles of students and teachers, it means taking greater account of the experience students bring to programs and it means rethinking the stance we conventionally take on the relationship between knowledge and values.

It also means rethinking the economic assumption that distance education is characterised by high investment and low unit cost. We need instead to think of spreading the cost of investment over long periods and of thinking in terms of creating generic programs that can be tailored fast to meet the needs of emerging demands and niche markets. We need to rethink the 'program' funding model as way of responding to fast emerging needs because courses need to be constructed around deep structures rather than surface learning. In common language, such courses need to be very clear about their philosophy, because in adapting them to different audiences and different purposes a flexibility is required which demands more than is demanded by merely updating or substituting readings[21]

It will be clear that I consider questions about the media to be intrinsic to this process, not subsiduary to it. I do not think we have fully thought through the impact of using media other than print in the context of distance education. In our use of video and audio tape we are oversocialised into the conventions of program making, which in turn imply passive roles for the audience. The conventional use of other media merely disguises the authoritarianism inherent in instructional models. There are other traditions we could

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[21] An interesting example is the *Science and Technology Studies* courses in the Faculty of Humanities at Deakin University, which consist of a common stock of course materials assembled over a number of years, which are used variously at different levels of undergraduate and postgraduate study.

draw on, in community television, in documentary film making, in observational cinema, perhaps even in arcade games, and the questions are not confined to the visual media, they can be applied equally to the way we read books. As educators, our uses of language (visual and literary) tend to be unidimensional. We continue to act didacticaly, to teach from texts with a narrow and highly stylised view of what it means to be literate, of what it means to read, write and understand; a view which seems to ignore both the nature of contemporary culture and what many linguists and critics have to say about such things.

A central paradox for distance education

At the heart of distance education lies the problem that the ways in which we define instruction and learning; as ordered, atomistic and sequential, are in fundamental contradiction with the nature of the knowledge we seek to teach.

Educators in general, and educational technologists in particular, have assumed that learning cannot be accomplished unless the teacher has a clear, unambiguous understanding of the subject to be taught. Distance education has been overtaught the lesson of instruction by objectives and gone to great efforts to create texts that avoid any trace of confusion or uncertainty. But the reverse side of our acceptance of the objectives model is that we have rejected the essential values of liberal education. We have made it more difficult, not easier, for our students to learn, for 'learning' in the way that universities value the word involves the student (and the teacher) in confronting paradox, ambiguity, uncertainty and disorder. In sanitising the concept of learning, we have deskilled both our students and ourselves, reducing our capacity to learn by reflecting on experience and so learning about learning.

Educators talk sometimes of a 'curriculum' and a 'hidden curriculum' and it might be thought that the discontinuity I claim to have identified between the nature of knowledge and the restricted view of knowledge implied by our approaches to learning and teaching represents a case of curriculum and hidden curriculum. There is some truth in this but I believe the structure of this problem is somewhat different. The two curricula I have identified run side by side as reversed images; matter and anti-matter, chaos and order, purity and danger; each constantly destabilising the other. As course developers and teachers, working in distance education we constantly encounter the fact that written into the script is a deep sense of irony. We find ourselves desperately trying to make sense in a world that constantly threatens to pull the ground from under our feet (and in which our best critical efforts are frequently redirected to stengthening and multiplying the forces acting to remove the rug on which we stand). The problem stems, not just from a mismatch between curriculum and pedagogy, but from the realisation that, while learning is difficult, teaching is fundamentally impossible.

Some concluding statements and an emerging program of action

1. Distance education is often treated as though it were a specialised and applied field at the margins of educational debate and educational research. The reverse is true. Classroom teaching, which is at the heart of 'proximal' education, is a highly problematic enterprise created by historical circumstance. Distance education, in undercutting our assumptions about teaching and learning in a classroom context, is a critical site for educational research.

2. Distance education, being uncluttered by accretions of organisational precedant, provides the best practical opportunity we have for disentangling accepted notions of the place of authority in education.

3. The use of media in education is not an option. All education is necessarily mediated. The important questions are about the particular characteristics of different forms, contexts and uses of media in relation to educational aims. All education and all educators are necessarily inside the media, not outside looking-in. Just as goldfish are said to see everything but the water they live in; we are all users of media even though we may find it hard to acknowledge the fact.

3. The images we hold of teaching and learning are not simply consequences of the process, or noise in the system, but a necessary part of the system. The institutional and organisational structures of education: timetables, roles for teachers and learners, textbooks, and particularly the notion of the 'classroom', have increasingly taken on a significance of their own. They can no longer be treated as a means to an end, but have become definitive of the process. While this remains an assumption of educational planning, part of the research task for distance educators is to act subversively to undo it.

4. Conventional instruction by its nature creates educational disability and undermines intelligence. Any attempts we make to create curricula in which knowledge is depicted as ordered and sequential undermine the capacity of students to grasp the truth. (That knowledge is, at heart, discontinuous and fraught by paradox, ambiguity, uncertainty and contradiction.)

5. Distance education has used the visual media more for distance teaching than for open learning. Part of the challenge for distance educators is create learning possibilities for students that creatively disrupt both the assumptions of instructional design and the conventions of media program making.

PAGE

MISSING

IN

ORIGINAL

SUMMARY

To know that you can do better next time, unrecognisably better, and that there is no next time, and that it is a blessing that there is not, there is a thought to be going on with.'

Samuel Beckett

Chapter Twelve

DEMONSTRATING CHANGE IN THE FACE OF MULTIPLE CRISES

> *We may have understated a little the difficulty of observing contemporary classrooms. It is not just the survey method of educational testing or any of those things that keeps people from seeing what is going on. I think instead that it is first and foremost a matter of it all being so familiar that it becomes impossible to single out events that occur in the classroom as things that have occurred, even when they happen right in front of you. I have not had the experience of observing in elementary and high school classrooms myself, but I have in college classrooms and it takes a tremendous effort of will and imagination to stop seeing the things that are conventionally "there" to be seen. I have talked to a couple of teams of research people who have sat around in classrooms trying to observe and it is like pulling teeth to get them to see or write anything beyond what "everyone' knows.*
>
> Howard Becker 1971, p.10

> *Social reality has no meaning except in language.*
>
> Chris Weedon 1987, p.34

Nicholas Negroponte, the director of MIT's 'Media Lab' argues that the possibilities for contemporary research are so many and varied that we need to find ways to discipline our efforts. In applied science particularly, the conventional 'disciplines' no longer define adequately what is of value and what is not, for many of the most interesting new ideas arise from the fringes, from inter- and cross-disciplinary work and from the areas of interference between conventional disciplines and their use in practice.

Negroponte's answer is to concentrate on what he calls 'demonstrations' rather than on 'experiments'[1]. All the studies that the Media Lab takes on are required to demonstrate their effectiveness by carrying ideas through to practice. Seymour Pappert's work in the Hennigan Elementary School is the Media Lab project best known to most educators, involving the researchers simultaneously in experiment, development and implementation, often in collaboration with teachers and students.

Negroponte's model seems to me a good model for educational research to adopt, for educational research too has found itself in a state of some confusion as a consequence of allowing a deep separation to develop between practice and theory. An attenuation which has left it vulnerable to criticism on the grounds of its ineffectiveness, or more often, selectively used by those whose interests it suits and otherwise simply ignored.

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[1]Negroponte's views are reported in Brand (1988).

In this thesis I have tried to apply Negroponte's principle to the use of case studies in the face of a set of emerging crises in science education and in educational research more generally. The 'demonstrations' I have described are not ones that necessarily carry through to direct classroom intervention, but they are demonstrations of research method and methodology in relation to specific issues and specific curriculum problems. I have constantly tried to demonstrate the effects and consequences of taking up particular research stances on the practice of research, rather than settling for abstract discussion or theoretical debate. I have done so, not because I think the debates are unimportant or insignificant, on the contrary I believe that they are too important to be ignored, but because unless such debates are located in the process of reporting 'news', they will remain dislocated from the lives of all but a small elite group of researchers.

The background to this thesis is provided by a major shift in research method in education which has taken place in the last twenty five years. During the 1970's there was extensive debate in educational research about methods and methodologies. In the US the debate was slow to emerge, a survey of AERA annual conference programs shows that from 1976 onwards a number of papers were presented reporting the use of case study methods, but almost none before that date (Stake's 1972 paper was a rare exception). Recent annual conferences, particularly in 1990 and 1991 show a broad array of methods in use (life history, fiction writing, feminist methodologies, photography), a point commented on by Philip Jackson, AERA president in 1990 who saw this extension of the methods used by educational research as a opposed to a sole reliance on the methods of psychometrics as one of the biggest changes he had seen in his career[2].

In Britain the debate began sooner, partly because educational research has always been a much smaller and peripheral enterprise involving less investment, public and private, than in the US. In Britain there has been a greater influence of other disciplines than psychology in research and in teacher education. Philosophy in particular has carried as much, or more weight than psychology in debates on teacher education and in the development of curriculum reform.

In science, for instance, psychologists have been conspicuously absent, Frank Halliwell attempted to involve psychologists in the Nuffield O-level chemistry project to look at creative problem solving, but without success (SAFARI interview 1973, also Waring 1979). Liam Hudson and Malcolm Partlett developed some novel ideas on

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[2]'The AERA Conference' Radio broadcast recorded by Rob Walker for ABC Radio National, 'Education Now'

personality and subject choice but did not sustain the research (Hudson 1968, 1969). Those curriculum projects most influenced by academic psychology looked overseas, William Hall to the work of Gagne at Florida State University (Schools Council Integrated Science Project), and Nuffeld Primary Maths to Jean Piaget in Geneva (especially through the work of Joan Bliss). And while the curriculum developers saw the professional work of teachers and the real world of the science classroom as the key influence on their curriculum work, British (and Australian) educational psychologists, with few exceptions, kept curriculum reform at arms length, seeing it as of little relevance to the progress of the discipline.

In Britain, philosophers took curriculum reform seriously, meeting the challenge (in Barry MacDonald's memorable phrase) with 'open jaws' (MacDonald & Walker 1976). Richard Peters (1966) and Paul Hirst (1965) were at the forefront of debate and exerted considerable influence. Peters' critical view of the objectives model, in particular, making it difficult for any project to adopt the model in the simplistic forms that can be found in many US programs. Indeed, for many years it seemed that no-one was appointed to a chair in curriculum without some credentials in philosophy. This in turn led some projects to work hard at thinking through the philosophical grounds on which they acted[3]. In this many were spurred on by the criticisms of those who consciously adopted what were seen as 'right wing' positions - the Black Paper writers in particular (Cox & Dyson 1969a, 1969b).

The active involvement of philosophers in curriculum issues in the 1970's led to a vigorous response from sociologists, initially from Basil Bernstein and Michael F.D.Young at the London Institute, soon to be followed by a new generation of young sociologists, mostly recently appointed to Teachers Colleges as sociology was taken up with enthusiasm in newly created BEd degree programs. The emergence of the sociology of education as a new profession was accelerated by other academic developments. A burst of interest in ethnomethodology in the early seventies, a complete reconceptualisation of the field by the Open University in its initial courses, especially the 'School and Society' course team and the emergence of strong academic and research groups at Goldsmith's College, Middlesex Polytechnic and then a number of provincial institutions, all appeared to happen in the space of months during 1972 and 1973.

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[3]Notably those associated with the Humanities Curriculum Project, not just Lawrence Stenhouse but a Cambridge-based circle of those associated with the project, many being students of Richard Peters. The circle included John Elliott, Richard Pring and Hugh Sockett, all later to become professors of curriculum. Other projects that took pains to think through what they were doing in philosophical terms include Geography for the Young School Leaver, Project Technology and Science 5-13.

One of the keys to these developments was a dramatic shift in methodological orientation away from the use of survey methods, which had characterised sociological research in the 1950's and 1960's, towards participant observation, symbolic interaction and sociolinguistics[4]. Correspondingly the locus of research shifted from the system (and the school) to the classroom, a shift that was encouraged by the appointment of sociologists in schools of teacher education, stimulated by the curriculum reform movement but enabled also by the increasing availability of small cassette tape recorders, and later of video. Sociology became the discipline best placed to inform debate through its observations of what was happening in classrooms and schools, just as it had provided the data for the debate about selective schooling in the two previous decades.

The opportunity was lost. As early as 1974, Bernstein himself noted this with regret in a postscript to an Open University course:

> '. . . the news of much contemporary sociology appears to be news about the conditions necessary for creating acceptable news.'
>
> (Bernstein 1974, p. 145)

Instead of bringing the news, sociologists found themselves arguing among themselves over who should hold the pen. Internal debates between those of different methodological and theoretical persuasions drowned out any attempts to understand what was happening in classrooms and in schools[5], and the even fewer number who saw the need to understand the local authorities as a priority for research[6]. With the research community divided and in disarray, the government introduced sweeping changes to schooling and to curiculum, while the academic and research community found itself split between those who attempted to stimulate debate (with minimal resources and little relevant evidence) and those who accepted government grants designed primarily to provide the basis to implement changes that were already deeply inscribed in the political process.

It is against the broad background of this academic and educational crisis that this thesis was written. It also explains why it has taken so long to write, for I began within the limitations of a sociology degree, looking to understand what was happening to sociology itself but lacking the ground on which to stand. It took time to see that curriculum issues were the most important point of focus and that sociology in itself had limited ability to understand them.

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[4]This history has been well told by Atkinson, Delamont & Hammersely (1987).

[5]Some would disagree. The account given by Atkinson, Delamont and Hammersley is more optimistic in tone and provides impressive documentation of the advances made by qualitative researchers in studying education in this period.

[6]Among the few who did were Helen Simons, Myron Atkin, Maurice Kogan and Renee Saran, but only the latter two had any claims to being considered as sociologists.

The picture I have drawn looks bleak. In current circumstances educational research that does more than provide a service function for the bureaucracy looks to be in a state of paralysis. The research reported in journals and at conferences seems caught in grooves and talking mostly to itself. Looking to the future there are some reasons to be optimistic, for despite an onslaught against progressivism (Bourdieu 1992), in research itself there is no shortage of interesting ideas. The emergence of post-modern thinking in educational research, and in science, provides the ground for radically different ways of thinking about, doing and reporting research. An action research tradition has been re-established which provides the ground for dismantling the long assumed division between theory and practice, while guarding against the marginalisation of academe[7] Perhaps most important, curriculum and schooling themselves are changing under the impact of the digital revolution in information technology, providing the basis for educational forms of which we have little experience and little understanding. We may find that no sooner is the national curriculum implemented than the curriculum assumptions on which it is constructed crumble.

In this thesis I have attempted to provide case studies that, in different ways, press the envelope of methodological convention and possibility in the belief that, following Basil Bernstein's precept, we need to find ways of doing research that reports news. Political structures may have changed irrevocably, reducing the opportunities for making effective use of academic research, but they will change again. It is still possible to find space for research that is independent, even if it is not the kind of space that researchers themselves would most want, we must make do with what resources are at hand. One of the main lessons that we need to learn from the recent past is to resist the temptation to assume a monopoly on the truth. In the face of multiple crises, research that is reflexive enough in its design and processes to be able to demonstrate its effects and consequences is one of many small steps that will need to be taken if the tradition is to be kept alive.

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[7]See, for example, Carr & Kemmis (1986), McTaggart (1990) Elliott (1991)

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